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Architects' Charges.

GENERAL meeting of the Royal Institute of British Architects having recently recommended a consideration of the paper issued by the Institute called "The Professional Practice as to the Charges of Architects," the Practice Committee of that body, as a step preliminary to taking the matter up, has, by circular, asked members to reply to two very comprehensive questions, which amount virtually to "What objections have you to the paper in its present form? And what suggestion have you to make?" Now, this sort of bait that may suit any fish that comes along may be useful to the unskilled or ignorant angler, but it is not what is used by a practical man. It sometimes proves to suit no fish at all, and at the best the greater part of the resulting catch has inevitably to be cast aside as useless. A skilful angler makes up his mind what it is he wants to catch, and baits his hook accordingly; and that is surely what the Practice Committee of the Institute, whom one must suppose to be practical men, might have been expected to do.

It is not as if an examination of the present document could possibly suggest to anyone that it is perfect, or nearly so, that it is anything like a clear or sufficient guide to architects or their employers as to the charges that should be made, or that there is no definite information that could advantageously be sought.

It may be—we sincerely hope it is not, but conceivably it may be—that the practice of individual architects in the matter of charges is so vague and indefinite, or that the practice of individuals varies so greatly, that in a paper which purports merely to represent what the general practice is, no more definite statements can be made than those contained in the present document. If that is so, it seems to be time for the Institute to exercise its influence by making suggestions calculated to lead to a more uniform system among men of approximately equal standing in the profession as to charges to which the 5 per cent. commission is inapplicable, or which it does not cover. The system of a uniform commission, or of a commission at all, has often been attacked, and is open to manifest and manifold objections. But until some system that is clearly better and less open to objection is suggested it is not worth while to consider even the possibility of altering that which, among all the uncertainties, is the one well-established and tolerably well-understood custom.

It is possible that some minor changes in what may be called incidental charges, or in the amount of work the general commission should cover, might at any rate be worth consideration if the Institute is prepared to advise the profession in the matter of charges. And if, on the other hand, it is only prepared to put on record what the general practice is, it certainly seems to us that one or two statements in the existing paper are worthy of investigation. But, in the main, what is wanted is not changes in the charges of architects, but such changes in the paper which professes to say what they are or what they should be as would make it really a useful guide to both architects and their employers. At present the first half of the document positively bristles with indefinite and non-committal remarks that bear no fruit which can satisfy the hungry inquirer. It may be impossible to fertilise all of these; but we are persuaded that the Practice Committee of the Institute might put themselves in a position to give the building world something much more definite and better worth having if they would address a few questions on definite points to architects known to be of sufficient experience and sufficiently businesslike habits to have established definite charges in their own practice. And in case inquiry failed to produce satisfactory information on a few points, a Practice Committee ought surely to be able to suggest what would be proper charges fair to all parties.

The second paragraph of the paper, after enumerating a number of services which the 5 per cent. commission does not cover, says, "For such services additional charges, proportionate to the trouble involved and time spent, are made." If an architect were to keep an accurate account of the time spent upon every letter and interview, he could obviously find out how much time a "negotiation," say, had taken; but how would he in any case estimate the "trouble" as a separate thing? Do architects, as a matter of fact, ever attempt to do any such thing? Do they generally keep an account of their time, and charge on that basis alone? Or do not a good many content themselves with counting the interviews and the letters? It seems a simpler and more satisfactory method, and most

people would like to know what an architect is entitled to charge for such items when they are not covered by the commission. Then, with regard to "supplying drawings to ground and other landlords"—and, it may be added, in these days, to a good many other people—is an architect entitled for such things only to his out-of-pocket expenses, or may he make a modest profit on them? If so, how is he to charge? By time? By a small commission? By the size of the paper—or how? The point has become an important one now that there are generally two or three public authorities in addition to "landlords," eacn wanting duplicate copies of plans for even the smallest piece of work, and in some cases wanting complete drawings of a building to which quite a small alteration is to be made.

In addition to all these, in connexion with works of any size a set of drawings and one set of tracings are in these days wholly inadequate. The quantity surveyor wants a copy on which to preserve his notes, the builder wants an extra copy to keep at "the yard," the clerk of the works wants a copy on which he can make notes, and the electrical engineer and heating engineer and others want copies—and generally two copies each if possible—of at any rate the principal plans and sections. Of course, the principal drawings are reproduced by lithography, and presumably the cost of lithography is charged to the employer; but how should an architect charge for his own work and that of his staff in connexion with these extra drawings, many of which must be coloured and finished in the office? We believe it is a practice in some offices to charge the several contractors with the cost of such extra drawings as they may want, and to make the clerk of the works trace his own. But such practices should be discouraged; it is most unfortunate if any money passes between architect and contractor, however open and justified the transaction may be, and the clerk of the works should not be kept in his office away from the duties for which he is paid.

In this same paragraph (2) the measurement and valuation of extras and omissions is mentioned. In London such work is generally left to a quantity surveyor; but elsewhere an architect, more frequently than not, acts as his own quantity surveyor, and it is therefore highly desirable that some authoritative statement should be made as to the proper charges for such work, either in this place or in Paragraph 18. Surveying, levelling, and plotting sites, and measuring up and plotting buildings for alterations, are items with regard to which the questions are much the same as in the case of extra drawings. The work is usually done wholly, or to a great extent, by assistants. On what principles is an architect to estimate the time and trouble involved? And what is he entitled to charge for each? We are not dealing with the form and arrangement of the paper, or something might be said about dragging in the clerk of the works "by the heels" at the end of this paragraph.

Paragraph 3 is, we think, the most unsatisfactory part of the whole document, inasmuch as it professes to deal with the most difficult cases in an architect's practice, cases upon which a little light would be most warmly welcomed, but really throws no light upon them. There must be exceptions to every rule, and "special circumstances and conditions" might very well be specifically admitted as sufficient reason for modifying any regular charge. But works of alteration or addition, or costing less than 1,000*l*., must be numerous in most practices, and, one would suppose, may form the bulk of some small ones. The only circumstance or condition which as a rule differentiates such works from others is the relatively large amount of time the architect must give to them if he does his work thoroughly. A 5 per cent. commission all round on such work does not give him anything like a reasonable profit, barely "a living wage," and in many individual cases he is actually out of pocket by the transaction if he does not charge more. Yet one cannot but feel some doubt whether many architects do, as a matter of general practice, find that they can charge more; and, if so, one would like very much to know how they regulate their charges; and, if not, how the Practice Committee of the Institute thinks they might do so. Should it be by a sliding scale of commission, or should one try to estimate "the time and trouble involved"? Decoration is a thing by itself; it is to a large extent in the hands of a special class of designer, and probably few unpractised architects could make it pay to design and detail painted decoration even if they doubled the ordinary commission; the cost of actually carrying out the work is relatively so small. Still, there ought to be some definite basis on which to charge even for such work.

Paragraph 4 mentions that "a modified arrangement" is made when several distinct buildings are erected at the same time from the same set of drawings. We can see no adequate reason for omitting to give the particulars of such an arrangement. We understand that there is one which is usual and which is well known to and frequently acted upon by many members of the profession. If the Institute is prepared to endorse it, why be so vague? If not, is it impossible to suggest a modification?

Limitation of space precludes our dealing with the rest of the document. As a matter of fact the first four paragraphs are those in which its indefinite and unsatisfying character are most apparent, though if the rest be examined a number of points will be found that might very well be cleared up, and others which are worthy of attention in the light of changes which have taken place in the profession in recent years. Our contention is that the whole document is worthy of serious consideration after it has been decided whether it is to be an authoritative schedule, a series of suggestions, or a mere statement of the usual practice; and that the committee to which it has been referred should not treat it in the rather cavalier fashion in which they appear to have approached their task.

NOTES.

Lightning Conductors.

THE Phœnix Assurance Company have issued a pamphlet giving rules for lightning conductors. The rules are stated to have been drawn up after consultation between Sir Oliver Lodge, Mr. Killingworth Hedges, and Mr. Castle Russell, the electrical expert of the company. They are practically a *résumé* of the rules issued by the Lightning Research Committee which are published in the *Journal* of the Royal Institute of British Architects for 1904. In a few cases vague statements have been made definite by giving concrete numbers. For example, where the Research Committe content themselves with saying that the gas-pipes should be kept as far away as possible from the lightning conductors, the Phœnix Company state that the earth connexions should be kept at least 12 ft. from gas mains. It is not quite clear why 12 ft. is the irreducible minimum or why definite instructions as to the minimum permissible distance between gas-pipes and lightning conductors are not given. It is stated that the earth resistance of each of the earth connexions should not exceed 5 ohms. Here again we fail to see why the number 5 has been chosen. If we knew that the copper-plate was well connected with the conductor and properly buried in the earth we should not be alarmed even if the earth resistance were 100 ohms. A special disconnexion joint is suggested for the purposes of testing, so that each individual earth connexion can be tested. This would probably be useful in special cases when a good "earth" is available for testing purposes. In actual practice the main difficulties which the testing electrician has to overcome are stray leakage currents in the earth, which render the ordinary testing set absolutely useless, and the obtaining of a good "earth" to connect with the box. In many cases the latter is not obtainable, and so the measurement of the insulation resistance is a physical impossibility.

Tests of Stone.

WE referred on a previous occasion to the valuable tests of road-making stones by Mr. E. J. Lovegrove, the Borough Engineer of Hornsey. A second series has recently been completed by the same engineer in collaboration with Mr. L. W. Page, the Director of the Public Roads Office of the United States Government. These later tests have been conducted in the State Laboratory at Washington, owing to the fact that no facilities were available for making them in this country. We have repeatedly pointed out the callous indifference displayed by our own Government with regard to scientific investigation into the properties of materials employed in architecture, engineering, and industry generally. The different attitude of the United States Government is abundantly shown by the numerous reports issued from time to time for the benefit of the American people, and which we are content to accept second-hand. That Mr. Lovegrove should have felt obliged to undertake a task properly belonging to a Government Department is bad enough,

but it is humiliating in the extreme to find that his researches could not have been completed without accepting the generosity of the United States Government.

The Welsh Dam Disaster.

ALTHOUGH the construction of dams may not come within architectural practice, the security of dams is a subject of vital importance to the owners and occupants of houses and other buildings. This point was illustrated in a very unfortunate way last week by the failure of a dam at some disused colliery workings high up in the Rhondda Valley. Without the slightest warning an enormous volume of water was suddenly let loose, sweeping down the mountain-side like a wide river. Some two dozen houses in Clydach Vale were literally washed away, and the village schools, where 900 children were engaged at work, were only saved by the partial diversion of the flood into the colliery railway cutting. Even then the schoolrooms were flooded to the depth of 4 ft., and six children were drowned. It is stated that several rows of houses in Clydach-road have been undermined, and that serious anxiety is felt for the security of some public buildings, particularly Saron Chapel, which is said to be in a precarious condition. It was known before the disaster that large quantities of water had collected in the workings, and at the time of the occurrence steps were being taken with the object of draining away the accumulation by the aid of a neighbouring stream. Whether the sudden outflow was due to unsuspected weakness of the dam, or to some disturbance caused by the operations in progress, are matters for consideration by the Coroner's Court and upon which we have nothing to say at present.

The Measurement of Light.

AN interesting discussion on "The Measurement of Light" took place last Tuesday amongst the members of the Illuminating Engineering Society in the Hall of the Royal Society of Arts. Units of light and the devices adopted for rendering comparable lights of different colours were the subjects which received most attention in the discussion. Professor Fleming objected to flame standards, such as the pentane lamp, on account of their sensibility to changes in atmospheric conditions. He suggested that the light emitted by incandescent platinum at its freezing point would, upon further investigation, be found a suitable standard; and remarked that since Violle proposed this standard scientific appliances have been so greatly improved that many of the difficulties with which Violle had to contend no longer exist. We think it is improbable that, even with the improved apparatus now available, incandescent platinum will be accepted as a standard of light, for there are many objections to its use. As pointed out by Mr. Paterson, it emits light of a reddish colour, and it would be difficult to obtain a receptacle for molten platinum which would not itself reflect or emit light at the high temperature to which it would be subjected. With regard to the comparison of lights of different colours, Professor Vernon Harcourt mentioned that when he was testing lights of different colours for lighthouse purposes many years ago, he found that even observers not used to making photometric measurements obtained very satisfactory results by using the Leeson star disc.

Structural Defects in "Provided Schools."

ONE or two decisions have recently been given upon the liability of local authorities as the educational authority where accidents have arisen on school premises from some dangerous appliance or from some structural defect. In the case of Morris *v.* Carnarvon County Council, noted by us January 29 last, the judges in a Divisional Court expressed some doubt whether a case, Ching *v.* Surrey County Council, was rightly decided, in which it was held by a judge at first instance that the local authority were under statutory obligation to maintain and keep in repair the school premises, and therefore it is important to note that the latter case has now been carried to the Court of Appeal, and the decision has there been affirmed. In Morris *v.* Carnarvon County Council the Divisional Court held the Council liable for injuries received by a little girl by the use of a swing door with a powerful spring, on the common law principle that when used by persons of tender years it was a concealed danger in the nature of a trap, but the Court expressed the opinion that the statutory obligation imposed by sects. 5 and 7 of the Education Act, 1902, to "maintain and keep efficient" the provided schools applied only to their maintenance as teaching institutions and had no application to the structure of the premises. The decision of the Court of Appeal has now set this matter at rest, as that Court has affirmed Ching's case, and has held the statute to impose a duty on the local authority to keep the premises themselves in repair. In that case there was a hole in the playground in which a boy whilst running caught his foot and fell upon the asphalt, breaking his arm, for which injuries the County Council were held liable in 83*l.* 19s. 6d. damages.

New Bridge over the Vistula.

VERY few bridges are to be found across the River Vistula in Prussia, where the width from bank to bank averages nearly 5,000 ft., and in places is considerably more. Hence the structure recently completed near Marienwerder is of great public utility and at the same time a noteworthy example of construction. The actual width of the river at the site is rather more than 5,116 ft., but by means of filling the length of the bridge has been reduced to 3,470 ft., made up of five bowstring girder spans of 426·4 ft. and five parallel girder spans of 255·84 ft. The nine river piers were built by the aid of caissons, and the abutments were founded on mass concrete footings constructed inside cofferdams of sheet piling. Thanks to the depth to which the caissons were sunk it was considered unnecessary to protect the exterior of the piers by stone ballasting, thus leaving each channel free from obstacles to navigation. The viaduct includes accommodation for the new railway between Marienwerder, Schmentau, and Riesenburg, having also a road 16·4 ft. wide for vehicles and a footwalk for pedestrians. As customary in Germany, each end of the structure is finished by a masonry building quite out of character with a long series of steel spans.

London Topographical Society.

THIS Society held its Annual Meeting on the 11th inst., at the rooms of the Society of Antiquaries, when Lord Welby took the chair, and the Annual Report, which was printed and in the hands of the meeting, was formally passed. The Report, which was a short one, consisting of a statement of what the society had published, included an expression of regret that they had not been able to secure for London the Gardener collection of London prints and drawings, which was about to be sold by auction; but the price required for the purchase of the collection as a whole was greater than any public institution could hope to be able to pay. Lord Eversley subsequently read a paper on the monuments in Westminster Abbey, the series of photographs of which, selected in chronological order, were of considerable interest, though those better acquainted with the art of sculpture may well have asked why the most beautiful and poetic monument in the Abbey, that to Henry Fawcett by Mr. Gilbert, was ignored both in description and illustration.

Archer's Tower at Birmingham.

WE regret to learn that the tower of St. Philip's, Birmingham, the church which is at present used as the cathedral of the diocese, is in an increasing state of decay. The church was built by Thomas Archer, the architect of the well-known church of St. John, Westminster, and the tower and cupola were the only portions which had not been restored and refaced. All who know Birmingham will remember the fine effect of this cupola, with its weathered stonework, above the smoothed-out modern facing of the church below. We are glad to find that the committee concerned with the subject have decided not to attempt refacing Archer's work, which would be its architectural ruin, but to renew certain portions which are hopelessly decayed, and to deal with the remainder by coating it with a preservative substance. It is hoped by this means to preserve the tower, with its soft weather-worn aspect, for at least a long time to come. A sketch of the tower was given in our article on Birmingham Architecture (in the series of "the Architecture of our large Provincial Towns,") in the issue of November 27, 1897.

The Ironmongers' Company's Almshouses, Shoreditch.

HAVING heard the Company's petition for leave to sell the charity land and almshouses, Mr. Justice Neville has adjudged that in his opinion it will be for the benefit of the trust to effect a sale. The Peabody Trustees have, it appears, offered 23,500*l.* for the property, the proposed disposal of which formed the subject of an inquiry in 1908 before Mr. Murray, Assistant Charity Commissioner, and of memorials from the National Trust, the Society for the

Protection of Ancient Buildings, and the Metropolitan Public Gardens Association. The Commissioners' report was in favour of the retention of the buildings in respect of their purpose and suitability for occupation, and in view of the considerable sums expended in recent years upon their repair. The Commissioners said further that "in exercising their discretion to grant or refuse sanction to the sale . . . they are not precluded from considering the question of public policy indicated by Parliament in regard to the desirability of retaining open spaces in the metropolis and of preserving ancient buildings." The Ironmongers' Company thereupon petitioned the Court for further inquiry into the expediency of removing the charity for the general benefit of the endowment. They established the charity under the will, 1703, of Sir Robert Geffrey, and, having bought a site of about 1½ acres in Kingsland-road, erected fourteen houses to accommodate some forty persons and their families, with a chapel and chaplain's residence. The site cost 200*l.*; in 1716 a plot at the rear was purchased for the burial ground. The almshouses, adjoining those of the Framework Knitters' Company (1727), consist of one-storied tenements about a large quadrangle planted with fine old trees. They present a characteristic and now rare example, upon the original site, of the many kindred institutions endowed by citizens and erected during the XVIIth and XVIIIth centuries in what were then the east and north-east suburbs of London. Greatly as we regret the probable destruction of a most interesting and picturesque old building, we do not see how, on the evidence given, the judge could very well have come to any other decision than to authorise the sale. Whether the building could nevertheless be preserved and made use of for other purposes is a point that may still be raised.

The Preservation of Bath.

THE old Bath Preservation Society has forwarded to the Mayor and Corporation of Bath the following resolution, passed at a recent meeting of the Society :—

"The Old Bath Preservation Society earnestly hopes that before the site lately occupied by the *Bath Chronicle* as offices is dealt with the Corporation will seek the advice of the best expert in Roman remains and Roman architecture, and that the Corporation will also seek the same advice before any proposal is entertained for the covering in of the Roman Bath."

It is to be hoped that due consideration will be given to this memorial, which is really in the best interests not only of archæologists, but of the inhabitants of Bath generally—if they could only be got to see that.

Architecture in India.

A CORRESPONDENT sends us an advertisement cut from the *Times of India*, with reference to the new buildings on a building estate. It states that a block plan and elevations have been drawn up by "the Trust Engineer" and approved by the Board of the Bombay Improvement Trust, and the buildings erected must be in general conformity with this block plan and elevations, which can be seen on application to the engineer. Thus it appears that the style of architecture has been settled by the engineer, and any architect who may be employed is to conform to the engineer's ideas of design. That is hardly the way to improve architecture in Bombay.

The Architectural Association Play.

THE Architectural Association Play, an annual event which is usually productive of a good deal of interest and amusement, as a vehicle of good-humoured professional satire, is this year (for the first time we believe) to take place in an actual theatre, instead of in a room or gallery arranged as a theatre for the occasion. We reproduce in miniature the effective poster designed by Mr. Simkin. One result of the change of *venue* is that, the conditions of a licensed theatre not allowing of the usual freedom to smoke during the performance, the "students' night" has been abandoned, and the usual two performances will both be "ladies' nights."

Poster announcing the Architectural Association Play. Designed by Mr. H. J. Simkin.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE usual fortnightly sitting of the Royal Institute of British Architects was held on Monday, Mr. Ernest George (President) in the chair.

Deceased Members.

Mr. H. T. Hare said he had to announce the decease of the following members :—Mr. Geo. Thomas, Fellow, elected in 1901 ; Mr. H. Jarvis, elected Associate 1866, and Fellow 1878 ; also Sir Thomas Drew, the distinguished President of the Royal Hibernian Academy, elected a Fellow in 1889. He was a Past-President of the Royal Institute of Architects of Ireland, and represented that body for some years on the Council of the Royal Institute of British Architects. His many honoured and artistic distinctions indicated the range of his accomplishments. He had always taken an active interest in the cause of architectural education, and had recently been appointed to the Chair of Architecture of the National University of Ireland. He moved that a vote of sympathy be conveyed to the relatives of Sir Thomas Drew.

This was agreed to.

The Business Side of Architecture.

Mr. A. A. Hudson, Barrister-at-Law, then read a paper entitled "The Business Side of Architecture."

He said that having once been in practice as an architect himself, and having for twenty-five years acted as counsel in building and engineering cases, he was able to speak from two standpoints, and could even speak from a third, for as building owner he had occasion more than once to employ architects to build for him. After some remarks on the work of the Board of Architectural Education and on that of the Architectural Association schools, he said, the first and foremost essential of all teaching was thoroughness, and it was especially so with a person studying to be an architect—a profession in which knowledge of detail and great foresight were of the first importance. Instruction in planning was suggested by the Board of Architecture, but he did not find it anywhere in the syllabus of subjects for instruction in the school of the Architectural Association. Another matter for instruction would be to teach the student how to make a well-designed exterior for a properly planned building. Although he might have studied ancient architecture, modelling, material, and construction, these acquirements must be applied to practical subjects. The result of art education had no doubt produced a race of young draughtsmen of great ability ; but there seemed to be a striving after eccentric features in buildings, without much regard to the comfort of the occupants. He had wished to build a house at the seaside, and the design submitted consisted of bay windows, gables, and some conceits in carved brickwork. He said that was not what he wanted, and pointed out that the only view was in front, and therefore bay windows were useless except as enlargements of the rooms. He wanted a comfortable seaside house with wide verandas, where he could sit out in all weathers. The architect said his professional standing would be ruined if he designed such a house, and he refused to design it. The result was that he paid for the design and employed some one with less scruples.

In the course of instruction in the Architectural Association's school, one lecture on the subject of specifications was given, and this only in the fourth year. He should have thought that one of the first essentials in the student's instruction would have been to teach him accurately to describe the various materials and methods of construction upon which he was receiving instruction during the course of his studies. But, assuming that the student in some way or another had managed to pick up sufficient knowledge to make a plan and write a specification for the building to be carried out, the next question was : What did the student know about his duties to the building owner, the builder, the clerk of works, the quantity surveyor, and, he might add, his duties in connexion with the employment of manufacturers of special articles required in modern building ? It was well, perhaps, to call attention to the chief causes of litigation, because they afforded a guide to the kind of business training necessary to avoid such troubles. Disputes arose generally from :—

1. Misdescription in the specification and discrepancies in the drawings.
2. Under-estimating the cost of the works.
3. Unauthorised alterations and additions.
4. Failure to supply the builder with drawings and instructions when they are wanted.
5. Insufficient supervision.
6. The employment of specialists.
7. The supply of materials to the builder by the building owner and of
8. The settlement of accounts.

Other disputes sometimes arose from the indecision of the architect and his failure to act according to the conditions of contract,

and from many other causes. The student might be given a course of instruction as to the meaning and effect of the various clauses in building contracts, the dangers or otherwise of their use or misuse, and instruction in particular upon the standard form of conditions of contract approved by the Royal Institute of British Architects. He was afraid, however, that if he were carefully instructed as to the effect of those conditions he would inevitably come to the conclusion that in some respects he would be wise to alter them. Further, inasmuch as the young architect might under some contracts have to act as arbitrator as well as architect, he should be taught the principal duties of an arbitrator, and it should be pointed out to him how essential it was for him to act with the greatest fairness between the builder and the building owner during the course of the works, in view of the judicial or quasi-judicial position in which he was placed under the contract. In such a position any incautious act on his part, very likely due to his want of knowledge of even general principles, might defeat the right of his employer to insist upon his acting as arbitrator. Questions of disqualification often arose from a desire of builders to try and get away from the decision of the architect, but they also arose from allegations of unreasonable and arbitrary acts on the part of the architect.

A student should be taught the proper procedure in arbitrations. He should learn some of the rules as to the reception and rejection of evidence and as to the question of costs. At any rate, he should have sufficient general information on the subject to enable him to know when he was getting out of his depth and when it was desirable to call in legal assistance. One elementary rule should be impressed upon the young arbitrator, and that was that he should at a very early stage of the arbitration either ask for a cheque on account or for a joint undertaking from the solicitors (representing the parties before him) to take up his award and pay his fees. If he went on with the arbitration without any arrangement as to payment he might find himself in this position, that when he asked for payment he was refused. In that state of affairs, if he did not go on, probably he would never be able to recover payment for all the work he had done. One case came to his knowledge where the arbitrator had sat for one hundred days, and there seemed no prospect of finishing under another seventy days. In these circumstances both parties refused to pay him anything, and one party threatened that if he did not go on he would sue him for not completing his duties.

He thought a short course of instruction might also be given to students on their duties with regard to the employment of specialists. The complications which arose from dealings between the architect and specialists were sometimes extraordinary and arose in other ways than from delay. Might he give another illustration of the necessity of business training of architects? One would have thought that an architect in practice and carrying out works of great artistic merit and at considerable cost would know that it was his duty to make up his mind whether work done by the contractor was to his approval or not; but he had known cases where an architect said in effect to his employer, when complaints had been made to him of work improperly executed by the contractor, "I have not given any decision; wait until the building is finished"; and the building owner had waited until he was even *in* the building, and still he was told to wait. The result was naturally litigation.

He would advise that the instruction in the school should be divided into two parts, the business side and the art side, that no student should be allowed to join the art side unless he joined the business side, and that both branches of study should go on together, and that no student should be properly qualified as an architect unless he had passed an examination in the business side.

But with all this instruction in the school, in which it would be possible to train the student very highly, it must not be forgotten that the young architect, unless he spent a proper time as a pupil, would by this change of training lose those great advantages (which he had as a pupil) of the close association with a master often of very high character and great ability. As a pupil the young architect saw how his master dealt with delicate and difficult questions from day to day, and he learnt, if he was fortunate to be a pupil of such a master as he had described, the duty above everything to hold the scales evenly between employer and contractor, and to perform those many duties devolving upon him with a high sense of the honour of his profession.

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Foresight was only gained by trying to write the specification and trying to imagine all the difficulties they would have to contend with on the building, and, if he could venture to draw attention to such a mundane thing, it would save them large bills for extras at the end of their contract. Then, with regard to the suggestion that an architect should plan his building and design the exterior to suit the plan, he believed architects would agree that when they were planning a building *pari passu* the external design was growing in their minds, and they could not dissociate one from the other. There used to be a practice in his young days to design the elevation first, and then plan to fit the elevation, which was, of course, an absurd thing to do. Their attention was drawn to the danger of making draughtsmanship the be-all and end-all of their existence, and they would agree that whilst draughtsmanship was good it was not architecture. 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They all appreciated the suggestion that a house should be quiet, unassuming, and natural, and one architect told him he always tried to make it seem that no architect had designed a house, but that it had grown up on its site, and that was a perfectly sound rule to follow. Reference had been made to the architect's attitude towards the contractor and clerk of works, and he agreed that the man who boasted that he was the master of the work and kept the builder under his thumb was making a very wild boast. It would be much better if the architect was reasonable and equitable in his treatment of the builder, so that the builder became his friend, and was anxious to carry out the work properly. Such an attitude did not imply weakness on the part of the architect, but rather strength, and the result would be that the builder, when he found that an improper act by one of his employees was condemned, would not resent it, but would respect the architect's decision. 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It was, of course, quite questionable as to how far the architect could make any variations without the knowledge of the client, and he knew of a case where a variation was made in good faith and the client was credited with the saving in cost, and yet an action was brought, and the architect was held responsible for it. As to the criticism of the form of contract, there was a very great divergence of opinion when the form was settled. Architects generally held that in any question of dispute it was better to wait until the end, because if they had a litigious contractor to deal with he might be threatening to go to arbitration every week. At the same time, any reasonable architect and contractor could get out of it, because the clause provided that the arbitration should wait until the end, except by consent, so that if the parties were reasonable they could have an arbitration at any time. These conditions were the result of a very great fight

Protection of Ancient Buildings, and the Metropolitan Public Gardens Association. The Commissioners' report was in favour of the retention of the buildings in respect of their purpose and suitability for occupation, and in view of the considerable sums expended in recent years upon their repair. The Commissioners said further that "in exercising their discretion to grant or refuse sanction to the sale . . . they are not precluded from considering the question of public policy indicated by Parliament in regard to the desirability of retaining open spaces in the metropolis and of preserving ancient buildings." The Ironmongers' Company thereupon petitioned the Court for further inquiry into the expediency of removing the charity for the general benefit of the endowment. They established the charity under the will, 1703, of Sir Robert Geffrey, and, having bought a site of about 1½ acres in Kingsland-road, erected fourteen houses to accommodate some forty persons and their families, with a chapel and chaplain's residence. The site cost 200*l.*; in 1716 a plot at the rear was purchased for the burial ground. The almshouses, adjoining those of the Framework Knitters' Company (1727), consist of one-storied tenements about a large quadrangle planted with fine old trees. They present a characteristic and now rare example, upon the original site, of the many kindred institutions endowed by citizens and erected during the XVIIth and XVIIIth centuries in what were then the east and north-east suburbs of London. Greatly as we regret the probable destruction of a most interesting and picturesque old building, we do not see how, on the evidence given, the judge could very well have come to any other decision than to authorise the sale. Whether the building could nevertheless be preserved and made use of for other purposes is a point that may still be raised.

The Preservation of Bath.

THE old Bath Preservation Society has forwarded to the Mayor and Corporation of Bath the following resolution, passed at a recent meeting of the Society :—

"The Old Bath Preservation Society earnestly hopes that before the site lately occupied by the *Bath Chronicle* as offices is dealt with the Corporation will seek the advice of the best expert in Roman remains and Roman architecture, and that the Corporation will also seek the same advice before any proposal is entertained for the covering in of the Roman Bath."

It is to be hoped that due consideration will be given to this memorial, which is really in the best interests not only of archæologists, but of the inhabitants of Bath generally—if they could only be got to see that.

Architecture in India.

A CORRESPONDENT sends us an advertisement cut from the *Times of India*, with reference to the new buildings on a building estate. It states that a block plan and elevations have been drawn up by "the Trust Engineer" and approved by the Board of the Bombay Improvement Trust, and the buildings erected must be in general conformity with this block plan and elevations, which can be seen on application to the engineer. Thus it appears that the style of architecture has been settled by the engineer, and any architect who may be employed is to conform to the engineer's ideas of design. That is hardly the way to improve architecture in Bombay.

The Architectural Association Play.

THE Architectural Association Play, an annual event which is usually productive of a good deal of interest and amusement, as a vehicle of good-humoured professional satire, is this year (for the first time we believe) to take place in an actual theatre, instead of in a room or gallery arranged as a theatre for the occasion. We reproduce in miniature the effective poster designed by Mr. Simkin. One result of the change of *venue* is that, the conditions of a licensed theatre not allowing of the usual freedom to smoke during the performance, the "students' night" has been abandoned, and the usual two performances will both be "ladies' nights."

Poster announcing the Architectural Association Play. Designed by Mr. H. J. Simkin.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE usual fortnightly sitting of the Royal Institute of British Architects was held on Monday, Mr. Ernest George (President) in the chair.

Deceased Members.

Mr. H. T. Hare said he had to announce the decease of the following members :—Mr. Geo. Thomas, Fellow, elected in 1901; Mr. H. Jarvis, elected Associate 1866, and Fellow 1878; also Sir Thomas Drew, the distinguished President of the Royal Hibernian Academy, elected a Fellow in 1889. He was a Past-President of the Royal Institute of Architects of Ireland, and represented that body for some years on the Council of the Royal Institute of British Architects. His many honoured and artistic distinctions indicated the range of his accomplishments. He had always taken an active interest in the cause of architectural education, and had recently been appointed to the Chair of Architecture of the National University of Ireland. He moved that a vote of sympathy be conveyed to the relatives of Sir Thomas Drew.

This was agreed to.

The Business Side of Architecture.

Mr. A. A. Hudson, Barrister-at-Law, then read a paper entitled "The Business Side of Architecture."

He said that having once been in practice as an architect himself, and having for twenty-five years acted as counsel in building and engineering cases, he was able to speak from two standpoints, and could even speak from a third, for as building owner he had occasion more than once to employ architects to build for him. After some remarks on the work of the Board of Architectural Education and on that of the Architectural Association schools, he said, the first and foremost essential of all teaching was thoroughness, and it was especially so with a person studying to be an architect—a profession in which knowledge of detail and great foresight were of the first importance. Instruction in planning was suggested by the Board of Architecture, but he did not find it anywhere in the syllabus of subjects for instruction in the school of the Architectural Association. Another matter for instruction would be to teach the student how to make a well-designed exterior for a properly planned building. Although he might have studied ancient architecture, modelling, material, and construction, these acquirements must be applied to practical subjects. The result of art education had no doubt produced a race of young draughtsmen of great ability; but there seemed to be a striving after eccentric features in buildings, without much regard to the comfort of the occupants. He had wished to build a house at the seaside, and the design submitted consisted of bay windows, gables, and some conceits in carved brickwork. He said that was not what he wanted, and pointed out that the only view was in front, and therefore bay windows were useless except as enlargements of the rooms. He wanted a comfortable seaside house with wide verandas, where he could sit out in all weathers. The architect said his professional standing would be ruined if he designed such a house, and he refused to design it. The result was that he paid for the design and employed some one with less scruples.

In the course of instruction in the Architectural Association's school, one lecture on the subject of specifications was given, and this only in the fourth year. He should have thought that one of the first essentials in the student's instruction would have been to teach him accurately to describe the various materials and methods of construction upon which he was receiving instruction during the course of his studies. But, assuming that the student in some way or another had managed to pick up sufficient knowledge to make a plan and write a specification for the building to be carried out, the next question was: What did the student know about his duties to the building owner, the builder, the clerk of works, the quantity surveyor, and, he might add, his duties in connexion with the employment of manufacturers of special articles required in modern building? It was well, perhaps, to call attention to the chief causes of litigation, because they afforded a guide to the kind of business training necessary to avoid such troubles. Disputes arose generally from :—

1. Misdescription in the specification and discrepancies in the drawings.
2. Under-estimating the cost of the works.
3. Unauthorised alterations and additions.
4. Failure to supply the builder with drawings and instructions when they are wanted.
5. Insufficient supervision.
6. The employment of specialists.
7. The supply of materials to the builder by the building owner and of
8. The settlement of accounts.

Other disputes sometimes arose from the indecision of the architect and his failure to act according to the conditions of contract,

and from many other causes. The student might be given a course of instruction as to the meaning and effect of the various clauses in building contracts, the dangers or otherwise of their use or misuse, and instruction in particular upon the standard form of conditions of contract approved by the Royal Institute of British Architects. He was afraid, however, that if he were carefully instructed as to the effect of those conditions he would inevitably come to the conclusion that in some respects he would be wise to alter them. Further, inasmuch as the young architect might under some contracts have to act as arbitrator as well as architect, he should be taught the principal duties of an arbitrator, and it should be pointed out to him how essential it was for him to act with the greatest fairness between the builder and the building owner during the course of the works, in view of the judicial or quasi-judicial position in which he was placed under the contract. In such a position any incautious act on his part, very likely due to his want of knowledge of even general principles, might defeat the right of his employer to insist upon his acting as arbitrator. Questions of disqualification often arose from a desire of builders to try and get away from the decision of the architect, but they also arose from allegations of unreasonable and arbitrary acts on the part of the architect.

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between the builders and the architects, and, like all documents settled in such a way, they were more or less a compromise. Where the words "reasonable satisfaction of the architect" appeared, they were settled by two eminent counsel. Mr. Hudson thought, with regard to the final certificate, the architect should make up his mind to say when the building was done to his satisfaction. But it would be a dangerous thing for an architect to give a certificate at any time that a building was completed to his satisfaction, as he would then immediately relieve the builder from all liability for anything improperly done, and take it on himself. The author's views with regard to costs in arbitrations should be reflected upon, because many architects did not know how to award costs, and thought they might give a decision in favour of one side, and yet for sentimental reasons award costs to the other. That was wrong, for they were sitting as judges. The advice of Mr. Hudson that they should see they got more security for their fees was most valuable, and he knew of a case recently where, after a sitting of twenty days, it became evident that the action was a vexatious one, and that the builder was going bankrupt. The other side had no interest in taking up the award and the arbitrator could not stop the proceedings, which had to go on to the end. The employment of specialists was a fruitful source of litigation, and he hoped architects would not be foolish enough to order goods and render themselves liable for them. The last suggestion as to standardisation was quite worthy of their consideration, but it was very difficult to standardise in architecture. He had been a member of the Standardisation Committee which met at the Institution of Civil Engineers, and they had standardised all kinds of engineering goods, and, of course, such things as drain-pipes, soil-pipes, rainwater-pipes, and so on, which architects had to deal with could be standardised. At the same time he did not see how they could standardise timber or bricks, and altogether standardisation was much more difficult for architectural than for engineering work.

Mr. John Slater, in seconding the motion, said he could not help thinking that the twenty-five or thirty years since Mr. Hudson was in an architect's office had thrown a glamour over his pupil days. He was afraid that the experience of many of them in their pupilage days was that the average young pupil did not get the instruction which the author had alluded to, but was rather told to trace things. The author said that the scheme of the Board of Education was that the pupil should study architecture as an art, but that was not the view of the Board. The Board thought that practical work was the main thing for teaching in the school, and when Mr. Hudson criticised the fact that at the Architectural Association there were only ten lectures on practical questions of architecture he (the speaker) felt very doubtful whether it was possible that such matters as this could be learned by a pupil in a school, or really could be taught in a school at all. They were so very much a matter of practical experience. They had to remember that the pupils were men who came from school or college, and were just beginning their work, and the matters taught by the Architectural Association and other schools throughout the country for the first two years were really the matters which should be taught to a young student, and it should be left to him afterwards in the office to get the further experience which he required. Mr. Hudson was right in saying that planning should be taught, but the drawing taught in the Architectural Association and other schools really included the planning of the building. Mr. Hudson said that the young student should know the duties of the servants of a house and so on, but it was quite impossible in a two years' course to give instruction upon all kinds of buildings, for there was not the time. He really did not think it possible in the school to teach a young student the duties, data, and facts that related to arbitrations. Before the architect became an arbitrator he would have had to give evidence on behalf of clients and others in the Courts of Law, and it was only the experience which he would gain in this way which would teach him the rules of court and the duties of an arbitrator. When he was first called on to give evidence he was told by an eminent Q.C. of the time that more cases were lost by trying to make them better than they were than in any other way. He had never forgotten that advice, and his subsequent experience had shown him it was true. If he might venture to give advice to an architect concerned in his first arbitrations he would say, "Never give any reason for the decision you come to." He remembered acting as arbitrator where he gave the builder less than half he asked for, and after the award was taken up the builder's solicitor came to him and said, "We have not the slightest intention of disputing your award, but my client thinks he has been very grossly deceived, and asked me to come to you and ask what were your reasons on which you based your award." He looked at the solicitor and said, "Do you think I shall?' and the solicitor answered, "No, I do not.' As to Mr. Hudson's advice to them to see that they got security for their fees, he remembered that a very distinguished President of the Institute many years ago was appointed arbitrator, and sat at the Westminster Palace Hotel. On the first day he invited the counsel to lunch, and said he could put the amount down in his award. The arbitration went on for many days, and when the parties found the costs getting very heavy they came to a private settlement and would not take up the award, with the result that the arbitrator lost his fees and had to pay for all the lunches. He quite agreed that an architect should make up his mind at once whether the work done by the contractor met with his approval or not, but it was the deferring of the decision to the end which led to so many disputes.

Mr. W. Woodward disagreed with the author as to standardisation, and supported Mr. Hall. Clause 16 of the Royal Institute of British Architects' contract gave absolute power to the architect with regard to materials and workmanship, and, although he was a party to the clause, he hoped in any fresh conditions the clause would be modified. He had had a case before him where the architect had rejected materials because of his want of knowledge of them. He was quite satisfied that the materials in question were of the very best quality, and ultimately he learned that in one instance the architect had approved of bricks which cost the contractor 3s. 6d. to 4s. per 1,000 less than those which were rejected. There certainly should be something in the clause to provide against such a decision as that. He would recommend every young architect to try and avoid the employment of sub-contractors, for the longer he lived the more he felt convinced that the fewer the sub-contractors on the job the better for everybody. They were certainly a nuisance to the builder, and ultimately became a nuisance to the architect. He agreed with every word of Mr. Hall as regarded quantities and specification, for whether the student was an art architect or not the knowledge of these things would be of value to him, and enable him to be master of the building when he went on the job. He would advise every student carefully to read the points on which litigation arose, and he would find mixed up with them were all the matters which he would require to carry on his business. Particularly he advised them to study those points with regard to extras.

Mr. Atken Berry said the paper and discussion reminded him of the discussion which took place many years ago in that room on the question as to whether the art side or the business side of their work should receive the greater consideration, and he remembered Professor Aitchison saying, "If I want to select a baker I do not ask the candidates if they know anything of the ancient history of the baking trade, or if they know the name of Pharaoh's chief baker, but I ask him, 'Can you bake bread?' In the same way I would rather ask the young architect of to-day, 'Do you know your business?' and on that I judge whether he is fit to practise or not." Mr. Hudson spoke of standardisation, but he viewed with some terror this increase in the idea of standardisation. It seemed to him if they were not careful it would crush out all individuality, and there would be nothing left for the individual to originate for himself. Architecture would become a sort of standardised sausage machine. The architect would be a kind of receptacle into which all the ingredients of a building were to be poured, and after a few turns of the handle out would come the standardised building complete in every respect, and to the entire dissatisfaction of everybody.

Mr. H. P. G. Maule said that, as Mr. Hudson had mentioned the school over which he had some control, he would like to make some reply. For many years he had had to do with architectural education, and for the past seven had had the conduct of one of the largest schools in the kingdom. There were two things which had been borne in upon him more than any other. One was the immense scope of the architect's calling—the amount of ground he had to cover and the multiplicity of things he had to know. The second was the great danger of overloading the curriculum. The more simple they could get the curriculum the better, because there were two ways of looking at education. One way of looking at it was that it was a sort of cramming-box wherein the student had to do little but sit tight and be stuffed. That was absolutely the wrong view: the other point of view was to try and train the student in the limited time at their disposal in principles, so that he could be enabled afterwards to train himself in details. Mr. Hudson had referred to one lecture being devoted to the London Building Act, and, of course, anyone with a limited acquaintance with that Act would know that that one lecture could in no sense be all the education required for the Building Act. It might, however, be a lesson in principles whereby it could help the student to tackle the Act with some little knowledge, and so to overcome many difficulties. So far from putting these things in the curriculum, he thought Mr. Hudson rather went to show they should be kept out, and, as Mr. Slater had said, the office was the proper place to learn these many points of practical experience. He would say that quite 98 or 99 per cent. of their students after the two years went into offices as pupils, and their training was by no means ended at the end of four years. He thought Mr. Hudson had made a mistake in writing his paper before rather than after visiting the Architectural Association school. A great deal was talked about architectural education, but comparatively few had actually had the handling of students. Theoretically, there were many things which it was desirable that students should know, but the more one had to do with them the more one felt how exceedingly dangerous it was to go too fast, and especially was it dangerous to criticise from a mere study of the curriculum and not to consider what was actually being done. With regard to specifications, for instance, in the first year the students were trained to write about the work they were actually doing and to write descriptions of the visits they made to buildings. If a student had a fairly solid knowledge of his materials and of the workmanship by which they were put together, when the time came he would have no difficulty in writing the necessary specification. If he knew the job he would be able to describe it. He agreed with the author that they should not be content with the limited amount of architectural education at present available. There must be many men who would be

willing and anxious to avail themselves of a higher architectural education were it available, and he hoped when that education was forthcoming it would not merely devote itself to grandiose designs, but would include many of those important points which they who had been in practice for any length of time must have had to face without any early guidance.

Mr. Max Clarke said he supported the author in his views with regard to standardisation. They had heard that bricks were not to be standardised, although the Institute had got a standard for them. The Science Committee at the present time were trying to get some information with regard to standardisation of paints, and had arrived at a state of almost intolerable confusion. It was perfectly well known that 50 per cent. of the paint at any rate was not paint at all, and the difficulty arose when they began to standardise it. He had brought before the Science Committee the desirability of bringing about the standardisation of timber. Fifty per cent. of the specifications for timber was for timber which could not be obtained at the present time. He thought students should learn the description of materials which were imported into this country, and where and how they could be got, and then they would have the men with a certain amount of knowledge able to use the information. At the present time it was absolutely correct that the specifications contained clauses which were copied from generation to generation, and dealt with things which were not obtainable. He had only that morning read a specification sent to him on account of a dispute in a building matter, and with regard to the plastering it said nothing at all which could be made common sense of. These matters ought to be brought before students and practising architects. The Institute were bringing that about in one small instance because they were going to put before them sooner or later a description of how they were to deal with dry rot. The two or three cases which had been dealt with by the Courts were bad for architects, and therefore he hoped the information which would be brought forward would be studied.

Mr. Delissa Joseph said the author had given them some candid criticism, but the impression produced on his mind was that it was not a criticism of the system of education so much as that business methods ought to be applied to the practice of architecture. Mr. Hudson would realise that it was impossible for the new-blown student to come out into the world equipped with practical knowledge and experience to enable him to carry on the work of his profession. These matters were largely matters of experience. In other words, it was only with maturity that a sufficiently wide knowledge of affairs was acquired to enable a man to bring these practical considerations to bear on his work. On the other hand, there was nothing to prevent a man beginning his career with a business system.

The motion having been carried,

Mr. Hudson said he was afraid the student had come in for too much criticism, and the architect for too little. With regard to the discussion, he never intended to say that the architect should hurry to give a final certificate, and if he were an architect he would delay it as long as he possibly could. If he might give a specific instance he would say that if the contractor put the damp course above the floor it was no good delaying a decision until the house was finished, and he had known cases of that kind. With regard to the School, he was shown the drawing which the student had made of a plan of the building, and he said, "Can you write a description of the plans of that building? Can you tell me whether the stone was hammer-dressed or rough or axed?" His suggestion was that the student should be taught the definite distinctions of tooling for the stone, and it was absurd to say he would find that out when he wrote a specification. It was a better test to describe what he had seen than to draw it. He thought the basis of the teaching in the school should always be "How it should be described, and what is the relative cost?" He was charmed with the method which they had at the Architectural Association School of teaching drawing, but he with great respect made the suggestion that the tendency should be not to make pretty drawings. He often walked along the street and saw a wretchedly-built house, and said, "I know that was a pretty drawing." The architect had produced little touches and nicks on the drawing-paper, and it was reproduced in a little bit of moulding which was not worth looking at. If a man looked at the drawing in its worst light it would be better. It would be of great value to students and to architects if they had every description of wrought masonry put on paper, for there was more litigation over the working of stone than anything else he knew of.

The President announced that the next meeting would be held on April 4, when Mr. G. Hubbard would read a paper on "Architecture on the Eastern Side of the Adriatic."

OLDHAM TOWN HALL EXTENSION COMPETITION.

A COMPETITION limited to architects practising in Oldham has been held for an extension to the Town Hall, which is to be increased by nearly double its size at a cost not to exceed 25,000*l*. Three premiums were offered, 50*l*., 30*l*., and 25*l*., and the Council also agreed to pay the unsuccessful competitors 5*l*. each. Mr. G. A. Willoughby, F.R.I.B.A., of Manchester, was appointed assessor, and out of the seventeen designs submitted he awarded the first premium to Messrs. Taylor & Simister, the second to Messrs. Winder & Taylor, and the third to Messrs. Jenkins Matley & Mills; all the drawings were on view at the Town Hall on March 14 and 15.

The existing Oldham Town Hall stands on a narrow rectangular site between Mill-street and Greave-street, with its front facing on to the public square. This open space, Oldham's civic centre, is remarkably mean for a town of such size; it is irregular in shape and levels, surrounded largely by public houses, and contains one monument of mediocre design thrust in a corner. The Town Hall, parish church, and Cotton Spinner's Building, give on to it, but do not relieve it of its general air of cramped ugliness. The Town Hall front however is rather a fine Greek design, with a bold tetrastyle Ionic portico in a cream-coloured stone (which does not appear to have toned down to the prevailing dingy hue); the returns to the two side streets are in grey brick with stone dressings, treated very simply and effectively with antæ pilasters. The whole building, however, is evidently not of this period; the back part, which is the more considerable, is treated on the Greave-street front in a rather high and dry Roman manner with flat Corinthian pilasters, and rows of small semicircular headed windows in between; there is an absence of any breaks or pediments in the cornice, and there are no key blocks to the arches. The corresponding front to Mill-street is faced with glazed brick and stone dressings; this street is much narrower than the other

The extension is to fill up the plot, at present rather more than half occupied, providing another narrow frontage to Firth-street, which runs parallel with the public square. The "Greek" portion of the Town Hall contains, as is frequently the case in town halls of this size, an entrance vestibule leading to a grand staircase with the large hall on the first floor occupying the front of the building together with other reception-rooms *en suite*. On the ground floor of this part is situated the Borough Surveyor's and Engineer's offices. In the "Roman" portion is situated on the first floor the Borough Court, with magistrate's rooms, etc., and the Town Clerk's department. It is intended in the extension to find accommodation for the Borough Treasurer and the Overseer, enlarged police quarters, additional rooms for the magistrates and court, and space for a Streets and Building Inspectorship department.

The Treasurer's department was to contain large revising, rental, and general offices, together with smaller private rooms; the Overseer's department, a Rate Collector's office, and four other rooms; the police department, a parade room, cells with yard, sergeants' room, etc. If possible, also, the competitors were to provide one or two additional committee-rooms.

The problem was by no means an easy one, partly owing to the narrow nature of the site and partly because the competitors were required to make the corridors of the new portion work in as regards levels with those of the older; a considerable drop in the site towards Firth-street made this more difficult.

All three premiated plans differ widely, though the main distribution of parts was almost inevitable; that is to say, the new police parade-room placed under the existing court, the cells grouped round a central area, and the Treasurer and Overseer's department facing on to Firth-street.

The winning design has taken the bold course of making a main entrance in the middle of the Firth-street front, leading through a vestibule out of which, on the left, opens the rates office, into the cash receiving office, with a fine counter running completely across the building; at the back of the cash receiving office is the rental office, also the full width of the building. Twin staircases lead up from the entrance vestibule to a central landing on the upper floor, which leads to a corridor right through the centre of the building to the central area; round the four sides of this it passes, forming here spacious approaches to the new rooms attached to the Borough Court, one side of which opens on to this area corridor. All these rooms are particularly well arranged. Off the landing open the rooms of the Inspector of Buildings and Drains, and off the central corridor the Overseer's department. The whole of this upper floor plan and the Treasurer's department on the ground floor are well arranged, and the main central line carried through the building gives a stability and a coherence to the plan. Perhaps the weak point is the small lighting area to the two yards of the police cells, which are rather more adequately lit and ventilated in the second design.

The second scheme is not so good. The cash receiving office is entered direct from Firth-street, and an equally important entrance leads from Greave-street to the staircase leading to the first floor. A good feature is the prison-van entrance, which is in the nature of a tunnel leading clean through the building with the yard entered at its centre.

The third scheme is less balanced than the other two. The Overseer and Treasurer occupy the ground floor, the Treasurer not occupying the full width of the building; this necessitates an additional area in order to light the central portion of the main office. The prison entrance leads from Greave-street into the prison court, which is carried through into Mill-street in the form of a narrow area. There are two entrances from Firth-street.

The second premiated design has been able to provide two large committee-rooms on the second floor, and also has kept the portion towards Firth-street at a lower level, on the top of which a future extension is suggested; but in spite of these advantages there is no doubt that the first premium has been awarded to the best plan.

As regards exterior treatment, the first condition says that the addition is to harmonise in style with the older building. This has led many competitors to carry on a treatment

more or less modified of the "Roman" portion. Mr. J. Stott has even continued an exact replica of it, though the considerable drop in the level would produce an overpoweringly lofty façade to Firth-street. The design submitted by Mr. T. H. Hill is perhaps the most successful in this direction. He has repeated for about one-third of his façade to Greave-street the "Roman design," and then has dropped down with a quiet lower portion treated with plain panelled pilasters for the Firth-street frontage. Both the second and third premiated designs have attempted more or less successful compromises, adhering in the main to the style dictated by the existing building. The winning design, however, has taken a complete departure. If the first two portions of the Town Hall may be described as "Greek" and "Roman," this third must be called "Victorian Renaissance," for it is a distinct and different style, presenting all the features of this latter-day phase—Ionic three-quarter columns, bulged frieze, window breaking through the entablature, high-pitched pediment, modillion cornices in two stories one on the other, elongated key blocks, and a squat stone cupola over the main staircase carried on Ionic columns, emphasising the entrance from Firth-street. If the conditions had said that the old building was to be entirely neglected, a more complete change of style could hardly have been adopted.

The one solution which does not appear to have occurred to any competitor was to revert at the Firth-street end to the same style as the portico facing the public square, and so produce a building with a modified version of "Greek" at either end, and a piece of "Roman" facing the narrow side streets in the middle.

'COMMERCE': FIGURE IN A COMPARTMENT OF HALL WINDOW, BIRMINGHAM UNIVERSITY.

THIS cartoon, illustrating "Commerce," is one of the lower lights of the south window of the Great Hall, Birmingham University.

The whole window is 26 ft. wide by 27 ft. high, and is divided into fifty-two openings, illustrating Literature, Arts, Languages, Engineering, Science, Bridge Building, Geometry, Mining, Forging, Geology, Physics, Electro-plating, Medicine, Surgery, Peace, Arts of War, Records, Commerce, Barter.

There are also included the arms of the donor of the window, Sir John Holder, Bart., Lord Calthorpe, Crest of the Chancellor (Mr. J. Chamberlain), the arms of the University, City of Birmingham, County of Warwick, and the adjoining counties of Leicester, Derby, Worcester, Staffordshire, and Shrophire.

The scheme of colour is in rich deep tones necessary to the blazon of the heraldry; these tones are carried through the subject panels. Most of the subjects are set within frames of white and gold glass of an architectural character, as shown in the illustration.

The architects of the University are Sir Aston Webb and Mr. E. Ingress Bell.

T. R. SPENCE.

JAPANESE-BRITISH EXHIBITION.—Mr. Walter Yates, President of the Institution of Heating and Ventilating Engineers, has been appointed Chairman of the heating and ventilating section of the exhibition at Shepherd's Bush. A large number of exhibits will be contributed from the art treasures collected at Tokio, and will present exemplars of pictures by Kosé-no-Kanaoka (IXth century), whose disciples founded the Yamato Tosa School in the XIth century, by Oi-no-Suké, famed for his painted fans (XVIth century), and by Nan-riu (Vth century), with specimens of bird painting by the famous Mitsu-oki. Hoku-Sai, most of whose works were executed for engraving upon wood, will be adequately represented, and his kakemono in silk, of Demons trying the bow of Tametomo, will be exhibited. There are also being arranged completely representative sections of ancient art work in metal and lacquer, wood and ivory carving, and ceramic ware.

Decorative Figure from one of the lights in the South Window of the Great Hall, Birmingham University. Designed by Mr. T. R. Spence.

BUILDING TRADES EXHIBITION, MANCHESTER.

THE sixth of the series of Building Trades Exhibitions in Manchester is being held in the City Exhibition Hall, off Deansgate. It was opened last week by Sir W. H. Bailey, and will remain open until the end of this week. Nearly all branches of the building trade are represented, but in some departments the exhibits are less numerous and less varied than one might have expected in such an important centre as Manchester. Such a lack of proportion between the different departments is perhaps unavoidable in every exhibition of the kind, where space is allotted to applicants without regard to the branch of the building trade to which their exhibits belong. Fortunately, however, the proportions are more evenly adjusted if we take a series of exhibitions. At one the sanitary exhibits may be unduly conspicuous, at another constructional materials and methods, at a third fire-grates, and so on; but looked at as a whole they show fairly well the progress of the whole trade. No attempt at a classified index of the exhibitors at Manchester has been made in the catalogue, although such an index would have been useful to visitors; as the number of stands is about ninety only, the compiling of such an index would have been a simple matter.

Let us turn first to constructional materials and methods. At Stand No. 15 Messrs. Wm. Hilton & Sons (Manchester) show a number of samples of marble, onyx, and other building and decorative stones, and some examples of masonry, including turned and moulded columns, and a short flight of steps with a well-worked balustrade of Caen stone on one side and another of beautifully-coloured English alabaster on the other side. Messrs. Tutin & Co. (Manchester), at No. 18, have a two-roomed stand built with "Salamander" tubular bricks. The bricks have tongued and grooved joints, and are made of various sizes—10½ in. by 6 in. by 3 in., 12 in. by 6 in. by 3 in., and 12 in. by 10 in. by 3½ in. The surfaces are grooved to give a key for plaster. At No. 23 Mr. W. Cooper (Manchester) shows his patent chimney-pot, the special feature being the hinged metal disc at the top, which prevents a direct blow-down without interfering with the sweeping of the flue. The Saxon Portland Cement Company (Cambridge), at No. 29, exhibit Portland cement in its various stages of manufacture, and some excellent specimens of artificial stone, including a large bow-window. At Nos. 37 and 38 the Enderby and Stoney Stanton Granite Company (Narborough) exhibit their granite curbs, setts and macadam, and the Empire Stone Company (London) show their artificial stone as applied to footways and architectural dressings, and also a sample of the Siegwart fireproof floor. This consists of reinforced concrete tubes supported at the ends on walls or steel joists or girders; the tubes are oblong in cross-section, and are made at the company's works in lengths up to 20 ft., ready for fixing. The Diamond Tread Company (London), at No. 46, exhibit their non-slip treads and tiles, as used in floors, stairs, manhole-covers, coal-plates, etc.; the material contains some hard, sharp substance like corundum, and certainly affords a firm foothold.

At a stand near No. 4 the Northern Asphalt and Roofing Works (Leeds) exhibit their "Dreadnought" bitumen dampcourse, "P.B.C." tongued and grooved partition slabs (apparently of pumice concrete), and "Kreenol" wood-preservative stains. At No. 48A Messrs. J. Cunliffe & Co. (Manchester) exhibit a dampcourse made of Trinidad bitumen, and at No. 54 Messrs. F. McNeill & Co. show a large assortment of roofing felts, dampcourses, slag wool, hair felt, and other damp-proof and heat-resisting materials. At the next stand the Plastoment Asbestos Flooring Company have laid a floor with their special materials; it consists of two layers, each ¾-in. thick, the lower being an "insulating" layer and the upper a hard and jointless material, which can be laid in plain colours or in patterns, and then polished. At No. 58 the Duroline Wire-wove Roofing Company (London) show their wire-wove roofing or unbreakable glazing; this consists of a fine wire netting embedded in a transparent and flexible material, white or coloured; they also exhibit the "Lastine" canvas and bitumen roofing, and the "Duroline" waterproofing tents and shelters. At Nos. 61 and 62 the Ruberoid Company (London) have a large stand with a curb roof covered with ruberoid, and in it they exhibit different kinds of roofing felts, insulating paper, dampcourses, etc., and two small roofs showing the use of ruberoid covering and flashings on flat and pitched roofs.

At No. 67 the Frazzi Fireproof Construction show their well-known tubular terra-cotta blocks for fire-resisting floors, roofs, and partitions, and at the back of this stand Messrs. James E. Beard & Co. (Liverpool) show the British Uralite Company's fire-resisting uralite sheets for ceilings and partitions, and "uralite asbestone" roofing tiles. Messrs. Machin & Koenig (Manchester), at No. 71, have erected a half-timber building with panels of "Eternit" slabs inside and out, and covered with thin "Eternit" roofing tiles. The Clee Hill Granite Company (Ludlow) exhibit setts, macadam, etc., at Nos. 75 and 76, and at No. 84 the Christie Patent Stone Company (Manchester) show a pedestal, vase, sun-dial, bow-window, and other specimens of their artificial stone, which is certainly a very good imitation of sandstone. The Fawcett Construction Company (London), at Nos. 87 and 88, exhibit their "Mon'lithcrete" fire-resisting construction, the special feature of which is a kind of lattice girder as reinforcement; the Edwardian chimney-pot, with side openings and concave top, is also shown.

Very little woodwork is shown in the exhibition. At No. 3 the Fernden Fencing Company (Haslemere) show samples of their fencing with cleft chestnut pales strung on galvanised wire, and at No. 26 Messrs. C. Jennings & Co. (Bristol) have a large display of doors, windows, gates, fretwork arches, and other joinery. Rustic and other summer-houses are exhibited by Messrs. R. White & Son (Manchester), at No. 28, and by Messrs. Inmans & Co. (Manchester), at Nos. 77 and 78. The Van Kannel Revolving Door Company (London), at No. 30, exhibit two well-made four-winged revolving-doors and enclosures, one of oak and the other of mahogany. Six well-designed and well-made hardwood mantelpieces, exhibited by the Carron Company (Stirling), at No. 35, must be included in this department. At No. 59 the British Patent Window Company (Manchester) exhibit their reversible sash window; the mechanism is simple, one of the principal features being the hinged bead up one side of the frame. Messrs. Shannon (Manchester), at Nos. 63 and 64, exhibit a number of their well-known filing cabinets, desks, and other office furniture. The Mansfield-Robinson patent panelling is shown by the Frazzi Fireproof Construction, at No. 67; the example shown is of oak, the framing being mainly ¾-in. in thickness, and the panels $\frac{3}{16}$-in in thickness; all the pieces are put together in a simple manner and held in position by tongue-and-groove joints. Messrs. H. C. Cleaver (at No. 78 according to the catalogue, but at No. 57 according to the stand) exhibit the "Tudoresk" oak panelling, and a well-designed and well-made mantelpiece in the same style, and also two other mantelpieces. We could not find this firm's revolving door, which is described in the catalogue.

The plumbing and sanitary exhibits are few. The first in order is that of Messrs. Allcock Brothers (Manchester) at Stand No. 4, where a bath, lavatory-basin, sink, and wash-down water-closet may be seen. At No. 6 Mr. Thomas Sherwood (Manchester) shows his brass socket for connecting a lead soil-pipe to a closet outlet; the special feature is the groove formed around the base of the socket to give a key to the solder. The Sherwood patent dummy is a tool which plumbers will find useful; it consists of a ¾-in. galvanised steel tube of any length, through which a rod works; to the outer end of the rod a handle is attached, and on this being moved to and fro the boxwood or metal dummy attached to the other end of the rod rises and falls. The dummy is made for use in lead soil-pipes 3 in. or more in diameter. At No. 16 the Patent Tip-up Bath Company (Birmingham) show their well-known sheet-metal bath, which can be turned up into a cabinet or recess; they also exhibit a model of a workman's cottage with kitchen-range, copper, bath, and sink in convenient positions. At the same stand the Hurry Water Heater Company (Birmingham) show a kind of geyser heated by an ordinary gas-ring. Messrs. Cakebread, Robey, & Co. (London), at No. 22, have a very good assortment of drain-clearing tools, smoke-test machines, drain-plugs, etc. Other drain-clearing tools, etc., are shown at No. 42A by Messrs S. F. Owen & Co. (Blackburn).

At No. 24 Messrs. Yates Brothers (Darwen) exhibit their "Easilit" blow-lamp for plumbers and painters. The top of the container is formed in the shape of a cup, and by means of a small valve a few drops of spirit can be drawn into the cup, and there lighted by a match. The heat thus obtained is sufficient to start the vaporising of the spirit in the container. This is one of several advantages claimed for the lamp. At the next stand practical demonstrations of the various uses of "Fluxite" soldering paste for tinning and soldering lead and other metals are given by the Auto-Controller and Switch Company (London). Messrs. Cookson & Co. (Newcastle-on-Tyne), at No. 49, exhibit models showing the methods of manufacturing white-lead by the old Dutch process and the new "Chamber corrosion process." They also show samples of their manufactures, including white-lead, sheet-lead, lead pipes, antimony, etc. Another interesting stand is No. 50, where the Metal Jointing Company (London) show their method of jointing metals by means of a metallic flux known as amalgaline. For joints in lead pipes a special tool is used to shape and clean the ends, and a thin ribbon of amalgaline is then wrapped around the spigot end, and this is inserted into the end of the other pipe. On heat being applied, the metals fuse together. The joint is easily and quickly made, and no solder is required. For branch and some other joints cast-lead connexions, such as tees, crosses, etc., are used.

The five porcelain-enamelled iron baths shown by the Carron Company at No. 34 must be mentioned in this connexion. One of the baths is fitted with a hood, and another has a foot-extension to form a soap-tray, thus doing away with all joints between the tray and the bath. Mr. W. Cambell (Manchester), at No. 68, shows a combined arrangement of bath and sink, which differs from any other which we have seen. The bath is an ordinary cast-iron bath, placed against a wall in the usual way, and over the foot a wood framework is fixed, in which there are a number of small rollers arranged in a circle. A glazed fireclay sink with a swivel outlet is placed over the framework, and when it is turned with the longer side to the wall it covers about two-fifths of the length of the bath. A flap-draining board or table covers the other part. When the bath is required for use the drainer is turned up against the wall, and the sink is turned out from the wall, thus allowing water to be drawn directly from the sink taps into the bath below. The sink waste-pipe passes through a hole in the upper part of the foot of the bath. At No. 74, Sanitaries (Manchester) exhibit Dr. Quine's sanitary ash-bins and wall cages for ash-bins; these are built into the walls of yards with doors towards the back streets to facilitate removal; on the yard side the bin is protected from the

weather by means of a hinged cover over the projecting part of the wall-box or cage.

Another exhibit which deals mainly with plumbing and sanitation is that of the Manchester Municipal School of Technology, at Stands 31 and 32. This includes many instructive examples of plumbing and a large number of small models of drainage and other fittings.

Fire-grates and ranges are shown by a few firms. At No. 2 Messrs. Isaac Newton Grundy (Manchester) exhibit the "Salamandre" stove for burning anthracite. This is of French manufacture, and, although it is efficient as a heater, it is very much over-ornamented. At No. 8 the well-known Eagle kitchen and galley ranges are shown by Messrs. Wilson's (Manchester), and also the "Eagle Hearth Grate," the special feature of which is the loose bottom bars of fire-brick instead of iron; an iron economiser is fitted in front of the ash-space, but there are no front bars. A large cylinder and an independent boiler for domestic hot-water supply are also shown. At Nos. 34, 35, and 36 the Carron Company have a good exhibit of fire-grates, wood and iron mantels, kitchen-ranges, copper curbs, brass fenders, etc. Particular mention must be made of the "Tyne" combination sitting-room grate and kitchen-range. This has an open fire in the lower part with tiled cheeks, and above this are two ovens, each of which is heated by a separate flue leading from the side of the fire. The main central flue and the two side flues are controlled by dampers. A bath-boiler can be fitted at the back of the fire if desired. The combination is simple and efficient, and is not in the least unsightly.

Machinery and tools are well represented. At No. 7 Messrs. W. B. Haigh & Co. (Oldham) exhibit their "New Type Improved" four-sided planing and moulding machine, a heavy tenoning machine, a heavy vertical graduated-stroke mortising and boring machine, and a chain mortising machine. At No. 14 Messrs. M. Glover & Co. (Leeds) show their useful "Ideal" saw-guards, a saw-sharpening machine, fire-lighter machinery, and other small machines for various purposes, in addition to working models of their firewood splitting, arranging, and bundling machinery. Messrs. H. W. Cowley & Co. (Bolton), at No. 17, exhibit a trenching and moulding machine, two mortising machines of different types, and their patent sandpapering machine for wood floors. The last looks rather like a lawnmower. It is wheeled over the floor by hand, but the cylinder on which the sandpaper is placed, and the fan by which the dust is driven into the container, are operated either by an electric motor or by a small petrol engine. At Nos. 20 and 21 the Oliver Woodworking Machinery Company (Manchester) have an ingenious band-saw filer at work, and also a chair-mortising machine with radial compensating drive, and with fan for removing chips and dust. A double-dimension saw-bench, with canting table, is also shown. Messrs. J. Sagar & Co. (Halifax), at No. 51, have a good display of circular saw benches, band-saw, mortising and other wood-working machines—nine in all. At No. 56 Messrs. Matthews & Yates (Manchester) exhibit the "Cyclone" fan and plant for collecting wood refuse, and at No. 60 the Northampton Machinery Company (Northampton) show a number of hand-driven machines for mitring and trimming wood. The patent Diamond Steel for sharpening tools, knives, etc., shown by Mr. J. Langer (London), at No. 72A, is worth mention; it is of the size of an ordinary carving steel, but triangular in cross-section, and the metal, which has been tempered by electricity, is so hard that it literally scrapes fine shavings from ordinary steel. At Nos. 82 and 83 Messrs. Kirchner & Co. (London) show fourteen wood-working machines of various kinds, including machines for planing and moulding, thicknessing, sawing, mortising, tenoning, and other purposes.

At No. 5 Mr. H. C. Slingsby (Manchester) exhibits a number of hand-trucks and trolleys and steel-back extension ladders. Mr. F. W. Bromley (Urmston) has a varied and interesting assortment of belting, flexible steel-wire scaffold lashings, "Dreadnought" hoists and winches, and a very ingenious adjustable centring, which can be easily altered to suit arches of different span and shape. At No. 40 Messrs. W. T. Nicholson and Clipper Company (Manchester) exhibit "Clipper" plank clamps, girder clips, belt fasteners, "Anchor" wall-ties, and other simple devices, and at No. 42 the Patent Rapid Scaffold Tie Company (London) and Messrs. J. Wright & Co. have a scaffolding exhibit with chains instead of the usual lashings. Hoists and lifts of various kinds for domestic and workshop use are shown by Messrs. G. Brady & Co. (Manchester) at No. 48, together with a revolving shutter of the usual type. Mr. Edward Leigh (Croydon), at No. 65, shows his simple and safe ladder-brackets for supporting a plank scaffold, the brackets having a vertical extension for the attachment of a guard-rail.

There is one stand only devoted exclusively to metalwork for doors and windows, namely, that of Messrs. W. & R. Leggott (Bradford). Their well-known fanlight-openers are, of course, shown, but in addition to these there are some hundreds of well-designed and well-made grip handles, letter-plates, knockers, casement stays and fasteners, locks, latches, bolts, and other fittings in iron, brass, and bronze. Particular mention must be made of the "Wilgot" mortise lock, in which all the moving parts, with the exception of the spring, are of gunmetal, and also of the "Wathol" panic bolt, which is one of the neatest we have seen; it can be fitted on single or folding doors, and is so arranged that the door to which it is attached can be locked or opened from outside; the locking does not interfere with the action of the panic bolt inside. At No. 22, among exhibits of other kinds, Stevens's barrel mortise lock, 1 in. in diameter, is well worth notice. The latch bolt is operated in the usual way by a spindle and knobs, and the lock is merely a simple method of preventing and permitting the movement of the latch bolt. The spring at the inner end of the bolt is a large spiral spring. The "Gripfast" fastener, shown at the same stand, has the advantage of drawing the door or casement, to which it is fixed, tight against the frame. At No. 47 the Reason Manufacturing Company (Brighton) exhibit a door-control, by which the door can be fixed in any desired position.

Electric and other lighting apparatus are shown by Messrs. C. C. MacCarthy & Co., at No. 1, and by the Northern Electrical Syndicate (Manchester), at a stand near No. 78, but numbered 13A in the catalogue. The former exhibit is mainly one of electrically driven fans, etc., but a dynamo is also shown. The latter includes electric-light fittings and lamps of various kinds, kettles, laundry irons, fans, switches, and other utensils and fittings. At No. 41 Messrs. J. Dugdill & Co. (Failsworth) have a very good display of movable pendants and brackets for gas and electricity. The fittings are made so that the light can be turned in any direction, and are well adapted for use in offices, and as reading lamps, and for special purposes such as dental and other operations. At No. 85 the Luxol Safety Light Company (London) show their "Luxol" nightlight and food-warmer, which appears to be a small oil-lamp.

Among the decorative and miscellaneous exhibits are the "Floro" washable distemper, and the "Fumisol" wood stain shown at No. 2 by Messrs. Isaac Newton Grundy; signs of various kinds, shown by Mr. Wm. Whiteley (Manchester), at No. 4A, and by Messrs. S. Newton & Co. (Manchester), at No. 73A; fireproof doors composed of sheet-iron, asbestos, etc., and well adapted for their purpose, shown by the Checkfire Door Company (London), at No. 66; the aerograph painting and stencilling tool by the Aerograph Company at No. 70; stencils and rubber stamps by Messrs. J. & E. Marx (London), at No. 72; and scientific instruments by Messrs. G. Limmer & Co. (London), at No. 45. Two other miscellaneous exhibits deserve mention. One is a half-size model of a pair of cottages which have been erected by the Manchester Tenants at the Garden City, Levenshulme, and the other a large scene, showing by means of paintings and small models the development of a "model garden city." These are interesting evidence of the growth of public opinion in the direction of more artistic and healthy towns and suburbs.

THE CARPENTERS' HALL LECTURES: THE USE OF COLOURED MATERIALS IN BUILDING.

THE ninth lecture of the series of Carpenters' Hall lectures on "Arts Connected with Building," arranged by the Carpenters' Company, was delivered in the Hall of the Company, London-wall, E.C., on Wednesday last week, when Mr. Halsey Ricardo, F.R.I.B.A., lectured on "The Use of Coloured Materials in Building." Mr. H. Phillips Fletcher, Surveyor to the Company, presided.

The lecturer first dealt with the antiquity of the use of coloured materials, giving instances of their early use in Eastern countries, and illustrations of various works in which coloured material was used. There came about, some 6,000 or more years B.C., the axiom in the Eastern mind that buildings of importance must be sheeted for their preservation, and this ideal was accepted throughout the East. It was accepted by the Greeks, who heightened their sculptured marble work with colour, and by the Romans, who adopted the Greek methods of decoration, but in far greater profusion. The Babylonish method of decorating with glazed plaques and bricks was perpetuated in Asia Minor and Syria; and under the Arab conquerors was carried into India, and along the coast of Africa into Spain.

Where marbles were obtainable, the plating was done with thin sheets of this material; patterns and pictures were formed with the tesseræ made of coloured glass or from fragments of the most brilliantly stained marble; rivulets of gold sparkled and ran along the mouldings and across the panels, and the paint-brush completed what the sculptor and mosaicist attempted to fulfil. Whilst Italy was being overrun by desolating hordes of northern barbarians, Byzantium was taking toll of the stream of commerce passing through her gates, intercepting the choicest treasures and accumulating in her church of Sta. Sophia and in the Emperor's palace the *ne plus ultra* of all that was valuable in art and costliest in decoration. Ravenna was following suit in a more modest way, and Venice was taking form amidst the shallows of her lagoons. Sicily, in the hands of the Normans, was luxuriating in the fusion of three civilisations—the Greek, the Saracen, and the Northman. The Crusader, on his return home, had strange tales to tell of the wonderful buildings he had seen on his way to the Holy Land: the marvels of Byzantium, the enchantment of Damascus, the long siege of Acre—the deadly stagnant waters near Alexandria where dwelt the Soldan of Babylon—the precarious sovereignty of Jerusalem. His listeners were not to be crushed by his extravagant accounts of the joyous revelry of colour. The craftsman of the XIIth century needed no spurring. The marble of Carrara could vie with that of Pentelion or Proconessus. All Asia had nothing to show that could not be matched in Europe. Florence, Pisa, Siena, Lucca—churches like Le Puy in Auvergne—grew up in coloured stones and marbles; brickwork coquetted with marble columns and enrichments; mosaic lent its aid to the glorifying of the cathedral fronts, as at Orvieto, and the many examples in Rome; terra-cotta,

at first unglazed, becomes in the hands of the Della Robbia family the supremest examples now left to us of coloured sculpture. But by now the craft had specialised into different branches of the building craft: the image-maker was become the sculptor; the painter was to be found learning his trade in some studio without the cathedral close; the glass to the windows was imported from some specialist whose factory was miles away or in foreign lands. The printing-press released the scribe from his toil of illuminating his manuscripts; the goldsmith was become as secular as the armourer; the mason's guild became bare and independent of these artists, and their almost only interest was centred in the stones they were handling. Artists, too, who had founded themselves on the careful examination and measurements of the bleached relics of exhumed antiquity, and were impressed with the sculptured finish of the workmanship, and assumed that the colourlessness of the specimens was their proper aspect, began to talk about "proportion" and "light and shade," and to dominate the masons, calling themselves architects. Colour vanished from the buildings externally. The wayward diapers woven in the coloured brickwork, the chequer of stone and flint, were considered as scarcely serious enough for the grand style. It might be pardoned in the stables, it was inadmissible in the mansion. Gradually the true working and the perfect jointing of the stones became all that the mason had to take pride in, in his craft, and the stones were not always of his choice, nor those from quarries with which he was familiar. Into the midst of this languor of weakened tradition came the Gothic Renaissance, with the avowed intention to replace the stiffened tradition of workmanship by the vital and exuberant tradition of the XIIIth century. The attempt was really foredoomed from the outset, and it—together with the sudden expansion of the use of machinery in every direction—played havoc with the methods and experience of the workman; it puzzled and disorganised him, and made him more than ever dependent upon the senseless and outlandish—to him—drawings and instructions that he was receiving from the architect. It took away from him his initiative, his desire to take advantage of the varying peculiarities of his materials, their humours and their tempers—qualities that you can only discover at the times of handling them. These conditions of docile submission to the paper designs of the architect still exist, and they were met by Mr. Butterfield in the frankest and most logical way in his methods of building. He schemed, in the quietude of his office, elaborate examples of the use of coloured materials, and these were set down fast on paper—stone for stone, brick for brick—there was no excuse, and scarce any opportunity for going wrong in the actual building—everything had been foreseen and provided for. This dominance of a single mind over both men and material was in his case less oppressive than it would be in most others, because he was a great artist, and he had trained himself on mediæval methods at a time when many examples of these methods remained unrestored and consequently instructive. But for all that, one was conscious of the difference there was between the scholarly dictation of the use of building material and the Gothic craftsman's use of the same on the scaffolding. Time would bring its own special touch to Mr. Butterfield's work, developing and accentuating the individual characteristics of the well-drilled units, fusing and blending the opposition of their colours; yellow brick and red brick would play at interchanging their tints till we got the flecked russet of the apple, and the black headers will make themselves the repository of the rainbow—the iris centres to the mingled hues vibrating around them. The dance of diaper would calm down, giving us the feeling of a rich woven fabric that adorns and distinguishes the splendid framework which it clothes. Time's hand is already justifying Mr. Butterfield's confidence in its action.

The Norfolk house had much more fellowship with the mediæval craftsman; beyond the main lines of the design, and the spaces for the windows—laid down at the outset by the exigencies of the plan—the walling had been built to suit the caprice of the material almost as much as the humour of the architect. Some of the materials must have been a good deal startled by the use to which they found themselves put. Roofing tiles, for instance, that might reasonably expect to be accommodated with a lath on the back of a rafter—find themselves summoned to pack themselves into a lintel, or wind themselves into a chimney-stalk, or help form patterns in the walling; whilst the roof, on which they counted to rest, gets itself covered by a distant branch of the same family—the pan-tile. The materials for the most part were local; the flints and gravel came out of the site, and were made—with lime—into the concrete walls, the largest flints being reserved for the facings. Bricks and tiles came from near by. A golden-brown sandstone—sparingly used—had to be imported from near Sandringham; the roof tiles, starting as pinkish-red, have weathered to a warm brown. These were the elements evidently of a beautiful colour scheme.

The colouring to the house in the Addison-road had been arrived at by another route, and belonged to a different category. Instead of using Nature's materials and painting from her palette, the colours in this case were all artificial; instead of the natural colours of brick, terra-cotta, and tiles, we had the materials covered with a glaze, and that glaze either whitened or stained with colour as required. The justification of using such materials—on which the wing of Time scarcely brushes—was the corrosive atmosphere of our manufacturing towns. Even supposing we could free the air from the soot and grime that pours from our chimneys, we could not stop the issue of the products of coal combustion in our factories and on our hearths. These gases, in our moist climate, became solutions of acid which disintegrated our marbles and stones before they had had the time and the chance to get case-hardened. Brick and terra-cotta got befouled; to clean them was to hasten their destruction. Granite endured, but it was a grim material—almost repellent when polished, and generally unattractive when not. We were driven, if we wished our work to resist the ravage of the biting air, to the employment of glazed surfaces externally; and we found ourselves almost forced by the nature of our materials to use colour. The glass that was poured over the surface of the terra-cotta and the bricks—to make them imperishable—was liable to discoloration in the kiln, and moreover, being in fact a stained glass window spread thin upon a film of porcelain, was capable of nearly as magnificent colouring. To refuse to avail oneself of this property would amount to misprision of the qualities of one's material and to confine oneself to its limitations. The fact that glazed bricks and glazed terra-cotta were virtually unchangeable—that the years that roll over the building would do almost nothing to blunt and soften the sharp edges of the moulded work, to coax any interchange and play of colour from one brick to another, from one material to another, were limitations indeed, and we want some considerable advantage on the other side to think it commensurate. Durability was good: that the building was impervious to wind and rain was a considerable merit: that it was easily and inexpensively cleaned and came up smiling under a good wash-down; and moreover, since the surface was non-absorbent, the cleaning process washed the dirt off and away. But these good hygienic qualities were scarcely forcible enough to overcome one's repugnance to the imperturbability of such a material—were it not for the charm of colour that was obtainable. The gamut of colour was the same as in a cathedral window; what we choose to call for, we could command to come. The almond blossom hue that flushes the sea-front of the Doges' palace at Venice could be fixed here in London; the stained amber and gold of the marble sheeting to St. Mark's could be matched and displayed in Trafalgar-square, not transiently but for always. Nor could it be questioned that colour was desired in our streets. It was pathetic to note the agony of effort that people make to invest their houses with a little colour and so mitigated the drab universality of our city. It had become the custom, when forming a new street, to plant trees at the same time, and every evening thousands upon thousands escape by every railway from the masterpieces of correct architecture and superfine sculpture in our streets to the shelter of the country, where the earth was green about them and the heavens blue above them. Would it not be well to temper their lot to the prisoners who remained?

A hearty vote of thanks was accorded to the lecturer.

PICTURE EXHIBITIONS.

THE LEICESTER GALLERIES.

AT this Gallery there is an interesting collection of landscapes by a young Italian artist, Signora Ciardi, of Venice, hitherto unknown in London. Her manner of treating landscape is a good deal in the style of the best contemporary French school; which is saying much for it. She paints in a very full and broad style, with a very fine sense of composition and of the poetry of landscape; see especially the two works entitled "Green Summer" (which, like other landscape of the same school, is not very green) and "Evening in Umbria," the latter a perfect little work. A good many of the subjects are from Italian gardens combining sculpture with foliage, the sculpture being very effectively treated without separating it from the general landscape effect. Altogether this is an exhibition by a new painter that is well worth seeing. In the adjoining room is a collection of landscapes in oil and water-colour by Mr. Mark Fisher, a painter also allied strongly to the French school. His style is well known and need not be described; we may call attention to two works especially, "The Avenue, Autumn," one of the best of Mr. Fisher's paintings that we have seen; and "The Vanishing Rainbow," in which the effect of a gleam of light in a heavy rainstorm is given with great power.

THE GOUPIL GALLERY.

Under the title "Nuits de Paris" there is at the Goupil Gallery a collection of six paintings by M. Le Sidaner, the nature of which is implied by the title; they are studies of city scenes under artificial light. This is, of course, M. Le Sidaner's special effect; he rarely paints anything else, and it is a somewhat limited form of art; but these pictures of Paris by lamplight are very powerful and effective.

METROPOLITAN ASYLUMS BOARD.

THE following, amongst other business, was transacted at the fortnightly sitting of the Metropolitan Asylums Board on Saturday last:

Leavesden Asylum.—The Works Committee reported that, with the concurrence of the Asylums Committee, they had arranged for the annual cleaning and painting works at this asylum, the cost of which is estimated at about 746*l.*, to be carried out by temporary labour.

Architects' Remuneration.—On November 20 the Managers formally appointed Messrs. W. T. Aldwinckle & Sons as architects in connexion with the erection of workrooms at Darenth Asylum, at a commission of 5 per cent. on the total amount of the works. Mr. T. W. Aldwinckle had written to the effect that he was entitled to be paid for plans and schemes which he prepared prior to the scheme approved by the managers. The Works Committee considered that, having regard to the number of plans which the architect had prepared, he was justly entitled to some remuneration in respect of the plans which had been superseded, and it was agreed to award him 26*l.* 5*s.* for such work.

MARCH 19, 1910.

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N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

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MEETINGS.

FRIDAY, MARCH 18.

The Architectural Association.—Professor Beresford Pite on "Filippo Brunelleschi and the Renaissance." Nomination of officers. 7.30 p.m.

Leicester and Leicestershire Society of Architects.—Mr. A. Herbert on "Influence of Classic Revival in Leicester." Lantern illustrations. 8 p.m.

London County Council Central School of Arts and Crafts (Lectures on Historic Arts and Crafts).—Mr. Alan S. Cole, C.B., on "Ancient Textile Patterns"—II. 6 p.m.

SATURDAY, MARCH 19.

Edinburgh Architectural Association.—Visit to (1) Royal College of Surgeons. (2) New Operating Theatre, Royal Infirmary. Mr. A. F. Balfour Paul, leader.

Aberdeen Architectural Association.—Mr. Theodore Fyfe on "Architecture in Ancient Crete." Illustrated. 7.30 p.m.

Junior Institution of Engineers.—Visit to the new engineering laboratory, workshops, etc., of Finsbury Technical College, Leonard-street, City-road. 3 p.m.

MONDAY, MARCH 21.

Institute of Sanitary Engineers (Sessional Meeting).—Mr. P. M. Fraser on "The Study of Housing and Town Planning." 8 p.m.

TUESDAY, MARCH 22.

Institute of Sanitary Engineers (Students' Lecture).—Mr. N. Hoskins on "Materials." 7 p.m.

British Museum (Lectures on Ancient Architecture).—By Mr. Banister Fletcher. XXIV. 4.30 p.m.

Institution of Civil Engineers.—Papers to be further discussed.—(1) "Birmingham Sewage-Disposal Works," by Mr. J. D. Watson; (2) "Salisbury Drainage," by Mr. W. J. Eames Binnie, B.A. 8 p.m.

WEDNESDAY, MARCH 23.

Carpenters' Hall, London-wall (Free Lectures on Arts Connected with Building).—Mr. R. Anning Bell, R.W.S., on "Coloured Reliefs and Mosaics." 7.30 p.m.

Institution of Civil Engineers.—Students' visit to the West India and Millwall Docks, Grain-Handling Equipment, etc.

Fifty Years Ago.

FROM THE *Builder* OF MARCH 17, 1860.

THE STONE OF THE HOUSES OF PARLIAMENT.

IN the House on Friday Mr. Wise asked the First Commissioner of Works whether any report had recently been made on the condition of the stonework of the Houses of Parliament, and what had been done with the 7,280*l.* voted last session for the purpose of indurating the external stonework. Mr. Wise said the Commission reported that the Bolsover stone combined the requisites of durability, economy of conversion, beauty of colour, and other qualities; but the contract entered into for the supply of the material was cancelled, and a new quarry opened belonging to the late Duke of Leeds, the stone obtained from which was, in the estimation of experienced builders, of an inferior description. He referred to Mr. C. H. Smith's charge, that proper supervision had not been exercised over the delivery of the stone, and the question was, who was responsible for so serious a neglect? The consequence of this was that they now found inferior material had been used, and large sums, in addition to the enormous outlay already incurred, would be required to preserve these buildings from a decay which ought to have been foreseen and guarded against. At the bottom of that state of affairs lay, he believed, the modern system of contracts, which gave great profit to the few and inflicted great injury on the many. For some time he had noticed a rapid, constant, and increasing disruption of the surface of the stone, especially on the terrace front. The decomposition was not confined to the plain face of the stone, but extended to the sills, bases, capitals, plinths, and the stonework above and below all these. He should be glad to know from the Chief Commissioner of Works what remedy he proposed to adopt for this state of things.

Illustrations.

PROPOSED CHAPEL, BERNDORF, AUSTRIA.

THIS is an interior perspective view of a proposed chapel at Berndorf, Lower Austria.

The nave and chancel are each divided into three bays by stone arches, which practically may be said to act as stone-arched principals, a solid and monumental manner of building which might be oftener employed for churches than it is, when a complete stone vault cannot be afforded. The wooden panelled vault between these is to be decorated, as indicated in the drawing, with figures of angels and a decorative representation of the starry heavens.

The exterior of the building is to be red brick with dressings of local stone, and local tiles for the roof.

Mr. J. T. Lee is the architect. The drawing was exhibited at the last Royal Academy.

PUTTERIDGE BURY.

OUR illustration shows the hall of this house, recently built for Mr. T. M. Clutterbuck, by Messrs. Ernest George & Yeates. The brick house has Doulting stone mullions and dressing, and the small bricks (six to the foot) have been made on the estate.

The drawing shows how the hall is oak panelled (linen fold panels) to the height of the doors, the stone walls showing above. The ceiling has oak moulded beams and joists, colour being introduced between the latter. A large bay is in an angle of the hall, and open arches.

The drawing was exhibited at the last Royal Academy.

HOUSE IN BUDAPEST.

THIS house is designed for a corner site on a broad boulevard with a double avenue of trees, and is to stand a little back from the road in a small garden. The basement contains kitchen and offices, rooms for the concierge, and the central heating-chamber. On the ground floor are the reception-rooms, opening from a large hall panelled in painted deal. The open fireplace is in white stone, and above the arch is a carved and painted group, emblematic of the Spirit of Modern Hungary. The dining-room and study are to be panelled in oak; the main staircase and the arches opening into the hall are in stone.

Above the boudoir and sitting-room is a roof-garden overlooking the boulevard. The external walls are of brick rough-cast, and the chief character of the design is due to the widely-projecting eaves, which cast a deep shadow and emphasise the horizontal lines of the building. C. R. ASHBEE.

A COUNTRY HOUSE.

THE annexed plan shows the arrangement of this house, of which the two principal sitting-rooms are symmetrical, with a central hall. The lavatory and cloak-room open off the garden entrance and the cloak-room is of sufficient size for the storage of bicycles and tennis racquets.

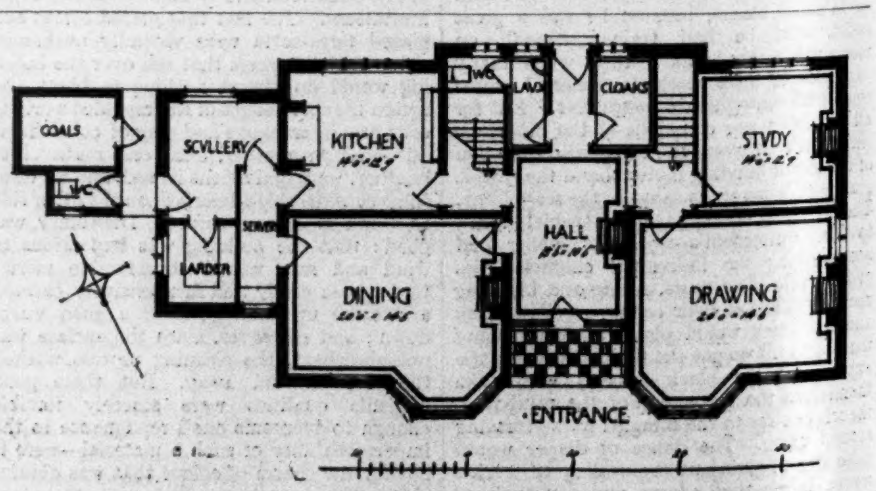
The first floor consists of four bedrooms, dressing-room, bath-room, etc., and the second of a suite of children's rooms, day nursery with large open-air, railed-in playground, night nursery, nurse's room, and also servants' quarters.

The lower part of the building is of stone, the upper stock brickwork plastered, with brick and tile mullions and quoins. The windows are of leaded glass in iron casements, and the roof covering of Westmorland slates.

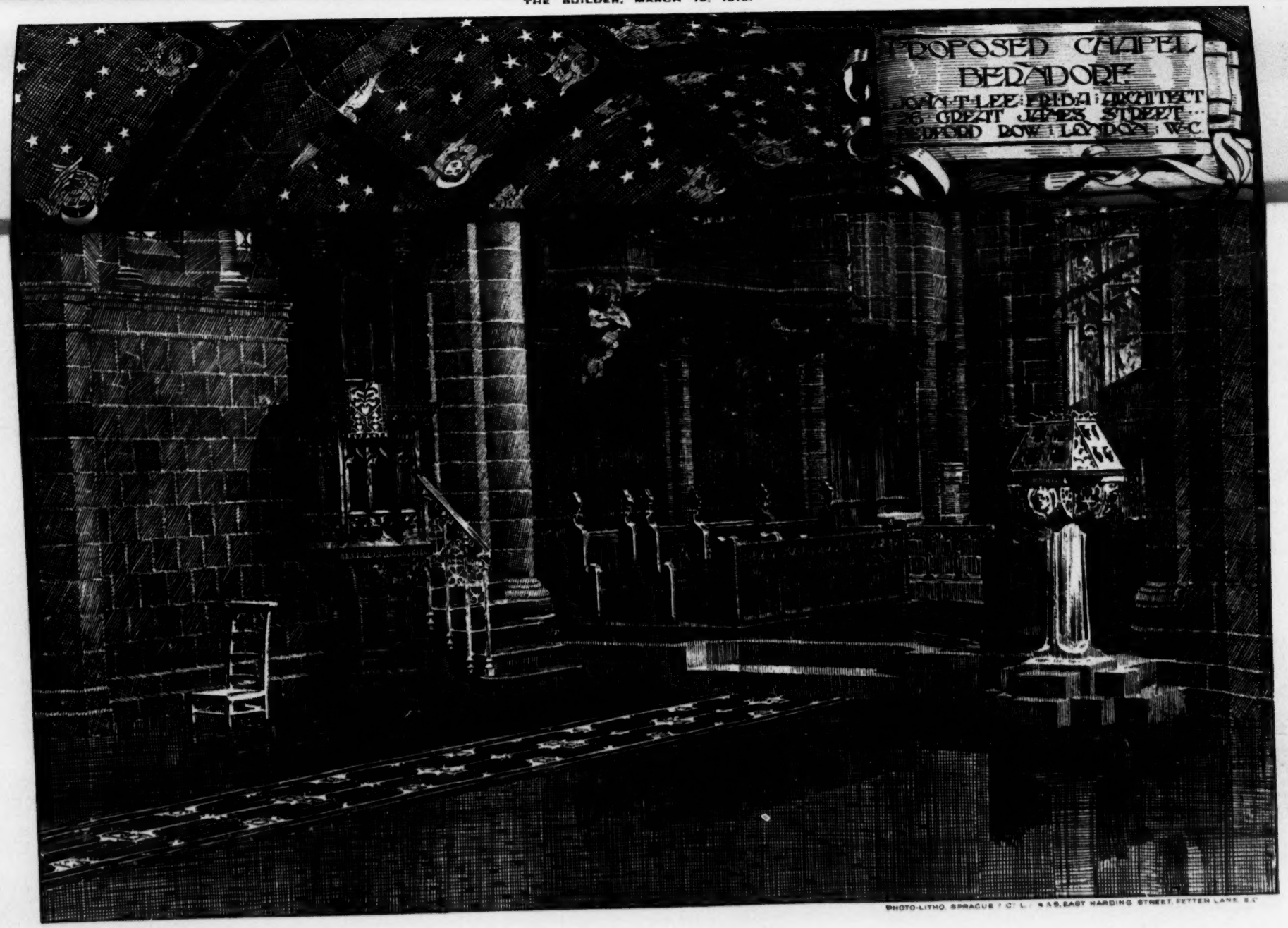
Mr. E. Dixon Spain is the architect. The drawing was exhibited at the last Royal Academy.

NOTES FROM FRANCE.

THE "Vieux Paris" Committee has made many efforts to prevent the erection of additions or alterations to ancient buildings which would spoil the architectural design of a street or square, but in many cases has not received the support of the Government or of the municipal authorities. The latter have now, however, with the support of the Vieux Paris Committee, been successful in an action to restrain the owner of a house in the Place des Vosges—formerly the Place



A Country House. Plan.


PROPOSED CHAPEL
BEDALORE
RAY T LEE FRIBA ARCHITECT
5 GREAT JAMES STREET
BEDFORD ROW LONDON W.C
PHOTO-LITHO. SPRAGUE & Co. L.d. 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

Royal Academy Exhibition, 1909.

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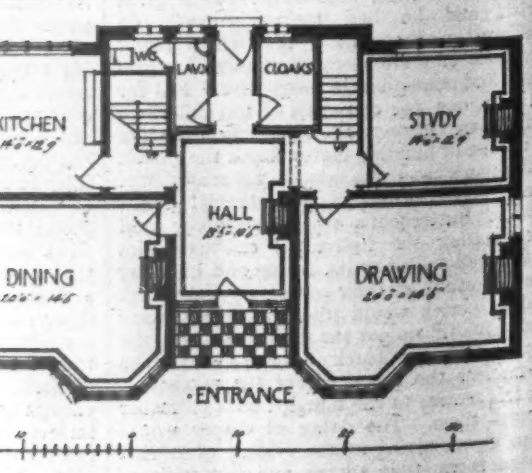
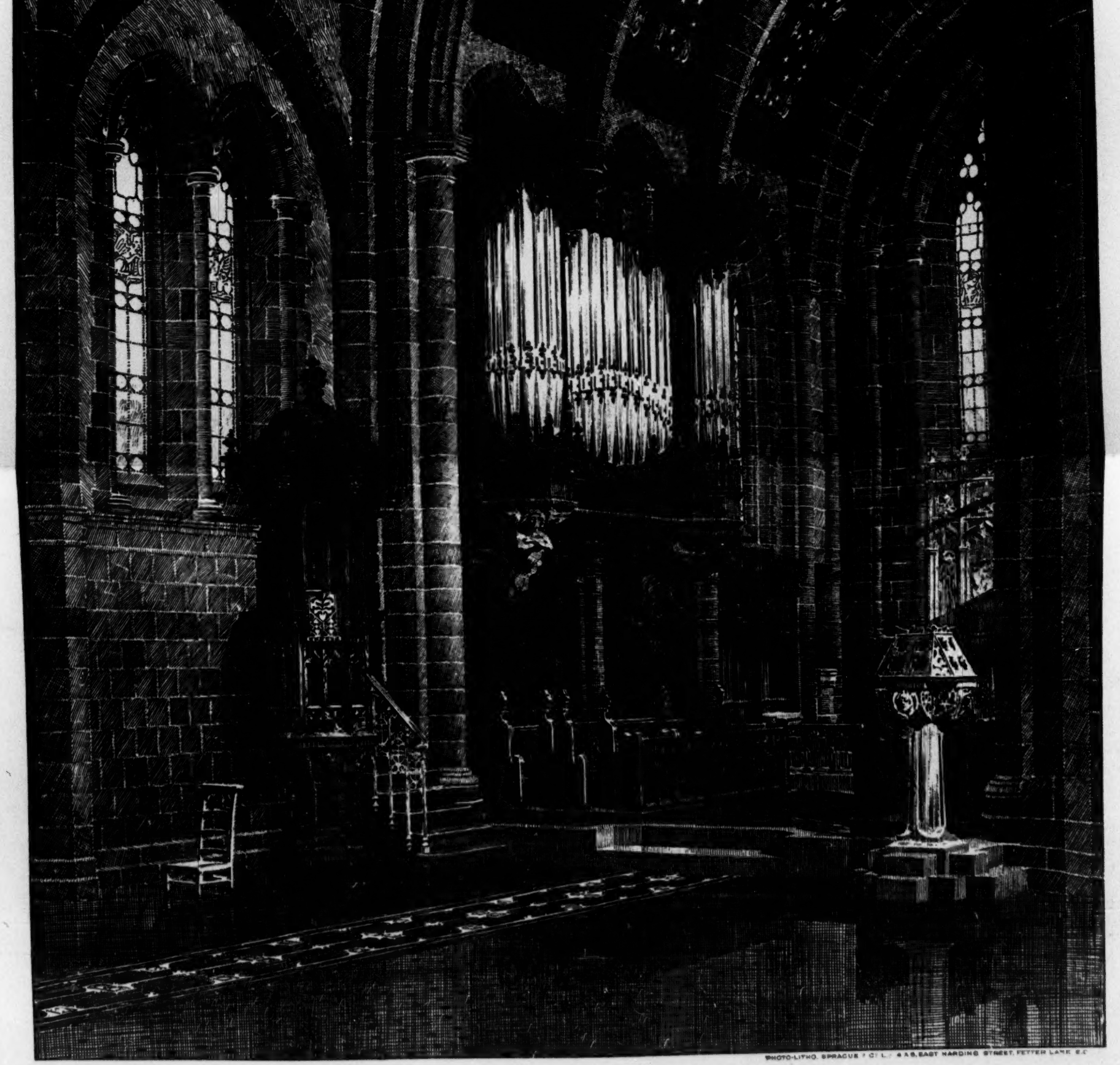


Country House. Plan.

THE BUILDER, MARCH 19, 1910.



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Royal Academy Exhibition, 1909.

Royal Academy Exhibition, 1909

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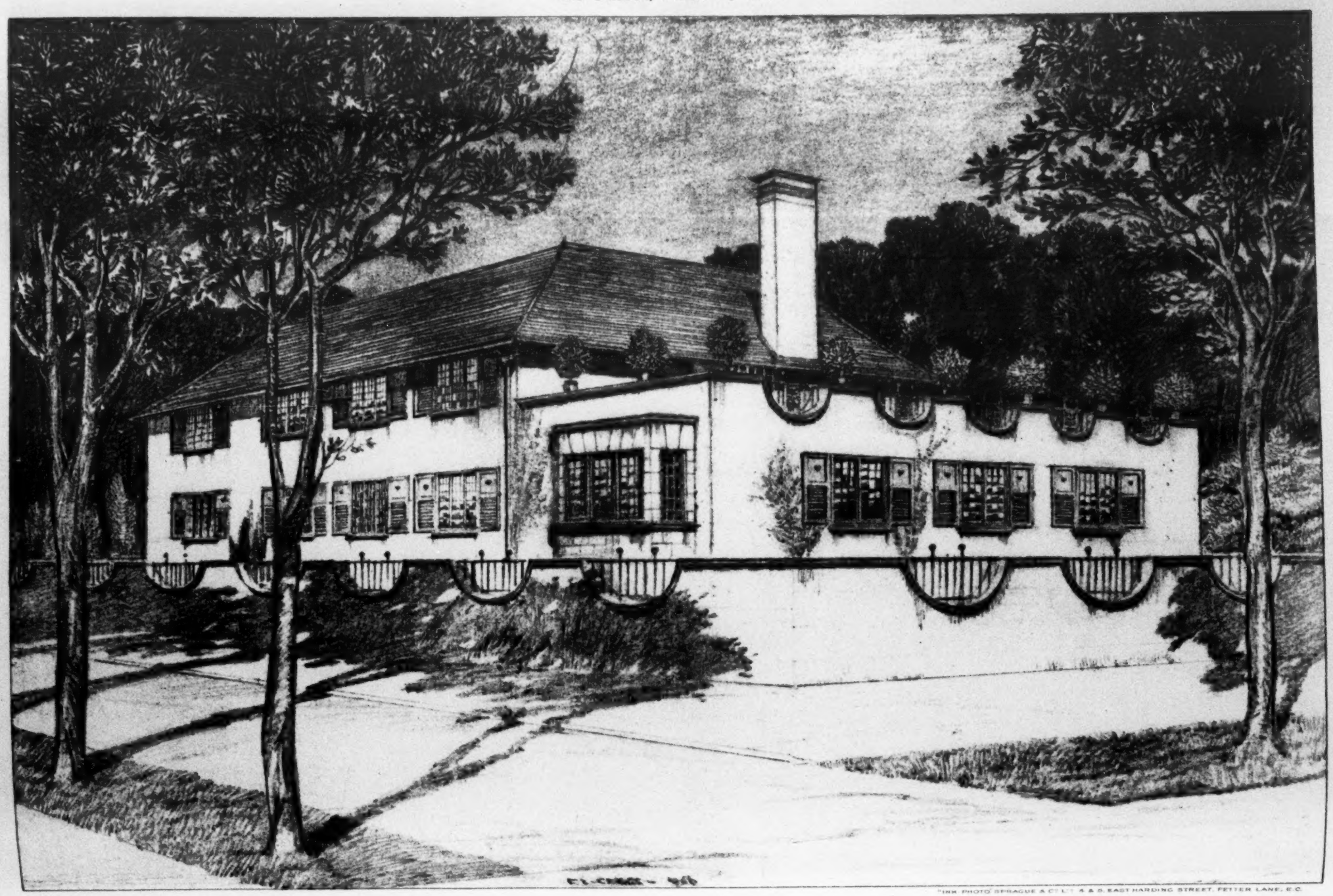

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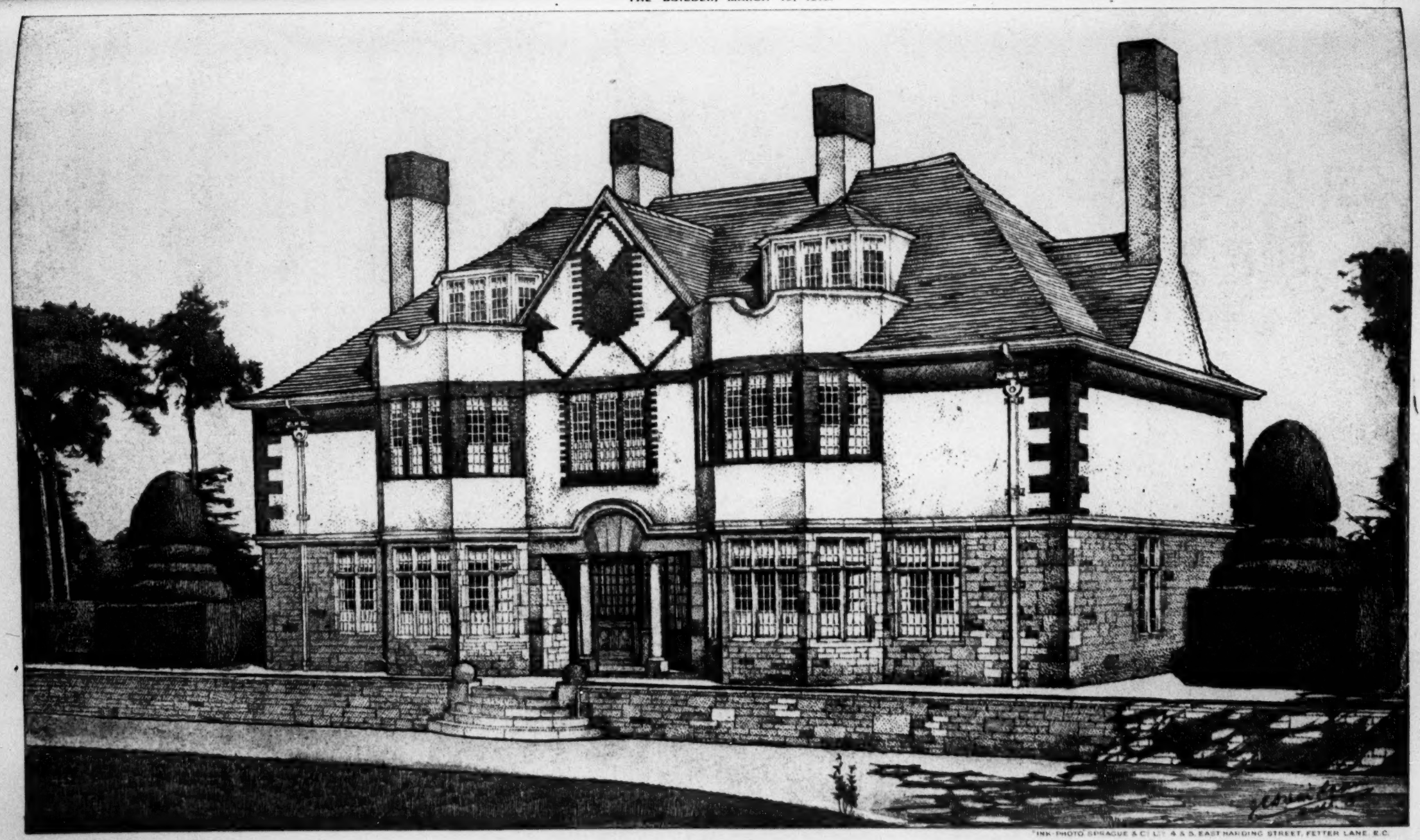


"INK" PHOTO SPRAGUE & CO. LTD. 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

Royal Academy Exhibition, 1909.

A COUNTRY HOUSE.—Mr. J. E. Dixon Spain, A.R.I.B.A., Architect

Royal Academy Exhibition, 1909.

REVIEWS OF BOOKS:

Monthly Supplement to "The Builder."

Books.

Vitrure. By Auguste Choisy. Four volumes. (Paris: Imprimerie-Libraire Lahure; 1909.)

A new edition of Vitruvius by such a man as the late M. Choisy is an event in the literature of architecture of no small importance. This was the last work which Choisy carried through, and had been just completed at the time of his death. With his logical and analytical turn of mind, his exceptional study of ancient methods of building, and his faculty for drawing clear and precise architectural illustrations, Choisy seems to have been the ideal person to undertake a new edition of Vitruvius.

The book is in four volumes. The first volume consists of a comprehensive analysis of the contents of Vitruvius; the second and third volumes give the Latin text with a French translation arranged in double columns; the fourth volume contains illustrative diagrams intended to explain the meaning of the text, with references to the page of the text to which each illustration refers. These plates are drawn in that practical and learned style to which we have been accustomed in the illustrations to the various books of the "Art de Bâtir" among the Egyptians, the Romans, and the Byzantines; illustrations in which not a useless line is introduced, and in which the sole object is to show the facts, or the presumed facts, in the clearest and most scientific manner. As in the works just now referred to, Choisy makes large use of the form of plan and section combined in perspective which has the merit of showing the whole structure of a building at a glance. He never attempts anything pictorial; to show the facts of building as they appeared to him is his sole object in his drawings. This is not to say that Choisy was not imaginative; occasionally the illustrations in all his books are a little too imaginative; there is a tendency to put forth as fact what was really only his own view as to the probabilities of the case; and the illustrations to the Vitruvius are not free from this defect. But whether we accept his view in any particular case, the illustration is always an interesting and valuable commentary on the text.

The object of the analytical volume is to endeavour to render clearer the sequence and connexion of facts and ideas expressed in Vitruvius's short concise sentences, and to endeavour to get at the underlying thoughts which prompted them—"ressaisir la pensée." In the translation, of course, the only object has been to express in French as literally as possible the purport of the Latin text. With Vitruvius, he says, the word *architectura* is really synonymous with applied science. But he is anxious to free Vitruvius from the charge of having wished to reduce all architecture to rule. His real object, according to Choisy, was to place before the architectural student the typical forms and arrangements which represented the experience of centuries, but leaving him free to modify these in applying them to actual buildings, in accordance with circumstances; he refers to several passages in the text in support of this view. In short, says Choisy, just as a sculptor recognises a normal type of proportion and form in the human figure, but modifies this type according to the expression and character which he has in view, so in regard to the architect; the type which Vitruvius proposes to him is the "theme normal," capable of variations of which the architect is to be his own judge in each case. This is possibly crediting Vitruvius with a greater laxity of intention than he really had, but there are passages in the original which support it, and at all events it is a view which is worth consideration, and tends to exonerate Vitruvius from some of the criticisms which have been directed against his somewhat dry and mechanically written treatise.

In his illustrations in regard to the tracery of the Ionic volute, Choisy seems to follow the old method of centres at the successive corners of a square, equivalent, as he observes, to the unrolling of a cord which had been wound round the square, a method which cannot produce a true spiral; and it is rather curious that, having referred to this idea of the unrolling of a cord, the method of unrolling a cord wound round a conical centre, which has been suggested as one possibly employed, does not seem to have occurred to him. With the method of employing centres at the angles of a square it is impossible to produce a really perfect spiral, or to avoid the appearance of a slight break in the line where the centre is shifted. The curves of the Erechtheion capitals were certainly never produced in that way, though the less developed and more rigid volutes of the Roman Ionic may have been.

Choisy has some interesting comments to make on Vitruvius's rules for the Orders. After remarking that Vitruvius shows the tendency of ancient writers generally, to attribute a mythical origin to anything of which they could not trace out the entire history, he suggests that the Doric order on one hand, and the Ionic and Corinthian on the other, really represent two distinct expressions inherent in human nature; on the one side that of force, on the other that of grace; the Doric style satisfied the former ideal, the Ionic and Corinthian the latter; the Corinthian being regarded as only a more ornate version of the Ionic—which is in a measure true, as the design of the entablature was not required to be materially different in connexion with these two styles of columns. Choisy draws attention also to the fact that in speaking of the proportions of the Ionic order Vitruvius introduces the question of inter-columnar space as a function, as well as a diameter of the column. We feel a little doubtful in regard to his reading of the passage (Lib. III., Cap. 3), in which Vitruvius speaks of the diameter of the Ionic column in relation to proportion. Choisy avers that Vitruvius takes his diameter from the foot of the column immediately above the base moulding, instead of the average diameter on the centre of the shaft, on account of the expression that so many semi-diameters are to be reckoned "præter crepidines et projecturas spirarum." Now it is true that *spira* was occasionally used as meaning the circular base-mould of a column, but it also means anything curved or spiral, and as he is speaking of Ionic columns, the meaning here must surely be "except the bases and the projection of the spirals" (of the capital); and the half-diameter for the module would be taken rightly from the average diameter of the shaft, not from its diameter at the base.

The question is touched upon as to whether Vitruvius, in speaking of entasis (Lib. III., Cap. 3), intended that the column should increase in diameter up to a certain height, before it commenced to diminish, or whether it was only intended that the straight line of diminution should be a little modified. Vitruvius refers to a drawing which will be added at the end of the book—"in extremo libro erit formata ratio ejus"—a drawing which has naturally not come down to us. Choisy thinks that the meaning was an increase or bulge in the width of the column up to a certain height, because, he says, the "fûts renflées"—the "swollen columns"—which have come down to us are all of later date than Vitruvius. Of considerably later date, surely; besides, we do not know that the teaching of Vitruvius had such a great influence on the practice of his successors. We think Vitruvius intended the more refined entasis curve as practised by the Greeks—*i.e.*, the modification of the straight diminishing line into a delicate curve; and it is rather odd that Choisy illustrates it that way himself in the diagram (Plate 34) referring to this point, though he favours the contrary view in the text of his analysis.

Choisy remarks that we have no information as to the sources whence Vitruvius drew his rules for the proportions of the Orders and for their optical modifications. He only refers to the fact that Hermogenes contemplated two different intercolumniations with the same height of column in the Ionic order (a practice actually carried out in the Temple of Diana at Ephesus), and he seems to imply that Hermogenes had left a complete theory on which the design of the Orders could be based. If such a writing was known to Vitruvius, as Hermogenes was a Greek of probably the IVth century B.C., Vitruvius may have got closer to the Greek tradition as to optical refinements than has sometimes been supposed; but he only cites Hermogenes once, and leaves all the rest of his authorities unnamed and therefore doubtful; and it is obvious that some of his rules for optical corrections do not tally with those actually adopted in, for instance, the Parthenon.

The publication of Choisy's book may probably lead some readers to look up their Vitruvius a little again, for it is of some interest to consider the opinion of so analytical a mind as Choisy's on the true meaning of many of the points in Vitruvius. And in any case he has left us a new and fine edition of the text, combined with a very interesting series of illustrations, which in themselves constitute a kind of critical analysis expressed in diagrammatic form.

The Architectural Forms of the Classic Ages. By Constantine Uhde. Second Edition, revised by R. Phené Spiers, F.S.A. Seventy-six plates. (London; B. T. Batsford; 1909.)

This is a large portfolio of drawings of the Classic Orders, collected from the measured drawings of various architects and draughtsmen by the late Constantine Uhde, Professor at the Technical High School at Brunswick—"Braunschweig" on the title-page; as the rest of the title and all the text is in English, the English form of the city name might as well have been given. It is revised at the exceedingly competent hands of Mr. Spiers. The names of those who are responsible for the drawings are given on each plate.

The preface to the first edition explains the principle on which the plates have been treated in regard to the question of scale, though the way in which it is expressed is not as clear as it might be. We give it here as stated in the preface:—

"The height of a building, an arcade, or an order of columns is uniformly taken at 0·333 = ⅓ of a

mètre. If therefore the plates are laid side by side so that the base-lines form a straight line, the differences in the heights and the general disposition of the separate parts are readily seen. In order to get a correct idea of the actual height of a structure in comparison with the drawing, multiply the given absolute height by three, and the product represents the ratio of reduction of the drawing.

In the Arch of Septimius Severus, for example, which has an actual height of 20·79m., the scale of reduction is found by multiplying the height by three: 20·79×3=62·37, therefore the actual structure is 62·37 times as large as the drawing."

This seems rather a roundabout way of doing it, but the result seems to be that the true proportions of size between different plates are preserved. There is some additional illustration of actual relative sizes, however, in two plates showing a number of examples to the same small scale, the columnar orders being given in groups of three columns so as to show the inter-columniation.

With all this trouble to give relative scales, however, there is the omission of one simple and obvious provision for facilitating the use of the plates—one at least which ought to have been obvious, viz.: the naming of the example on the plate itself. This is a constantly recurring nuisance in books or portfolios of large architectural plates, especially those of foreign manufacture. It seems such a simple and easy thing to print at the head or foot of the plate the title of the building represented: but no, that seems to be considered making it too easy and convenient to the student; and so all the plates are left as anonymous representations of something, you do not know what, and for information about every plate the reader has the labour and irritation of turning back to the number of the plate in a printed description at the beginning of the book, before he can discover what it is that he is looking at. It is a perfectly ridiculous and inexcusable system (or want of system); as if a drawing were spoiled by having its title on it! and we cannot but wonder that it did not occur either to the English publisher or the English editor to remedy this defect. Our honoured old friend, Normand's "Parallèle des Ordres d'Architecture," does give the title of every example at the top of the page, to the author's credit be it recorded; but very few French and German books of the kind do so; and this is an absurdity which ought to be protested against.

This is, however, a splendid collection of plates, which everyone interested in Classic architecture should be glad to possess. It commences with a plate of Egyptian columnar detail, coloured; which is quite in place, since the Egyptian column, clumsy as it is, was the parent of its far more beautiful Greek successor. Two pages of Persian work were perhaps hardly required, for we do not believe that the Persian column influenced Greece at all; it has none of the monumental character of the Egyptian column, and beside the Greek Doric column it is an illogical plaything. There are plenty of sheets of decorative details and mouldings of Greek work, some of the sections of mouldings, capitals especially, to a good large scale; but whether they are half-size, or whether any of them are full size, it is impossible to find out from any information given on the plates. The Doric orders are represented by a number of finely-drawn examples, though we observe that there has been a neglect to give the plan of the column and capital, which would certainly have rendered the representation more complete. There are however one or two detailed plates giving plans of columns.

It is not very clear how much in this edition is due to the original author and how much to the English editor; but we observe that in the elevation of the Parthenon Order and that of the Theseion there is a diagram attached showing the theory of Pennethorne, according to which the height and projections of parts were designed so as to have a certain proportion when seen from a certain point only, and as if projected on a sphere of which the eye was the centre. We expressed the opinion many years ago, when Pennethorne's book came out, that the idea was a mere delusion of an optical theorist, and that it was absurd to suppose that the Greeks were so foolish as to design a building, with immense care and cost, which was to be regarded as right only when seen from a certain specified standpoint. Like some more recent lucubrations, it was the fancy of a mind over-wrought with optical theories.

In the elevation of the Parthenon order there is a greater degree of accuracy than usual; the slight slope inwards of the line of the entablature is indicated, and also the fact that the third triglyph from the angle is not axially above the second column; but it is odd to find, with all this care, that the incorrect representation of the crown-moulding of the pediment, given both in Normand and Mauch, is repeated here, in the general drawing, though the correct section of the moulding, large size, is actually given on another plate.

There is another curious matter in the diagram in the text of the pediments of the Pantheon and of the Maison Carrée, with the remark that the reader is to compare the two "and note the difference in the inclination of the modillions of the pediment." But the Pantheon modillions are shown absolutely vertical, and the very point of the matter is that the Pantheon modillions are *not* perfectly vertical, because the raking cornice originally belonged to a decastyle temple, and when reset for an octastyle portico the angle was slightly altered, the slope being greater, and consequently the modillions had a slight inclination inwards. We are putting the argument the wrong way about, perhaps, for in fact it was from this inclination of the modillions that Chedanne was put on the discovery of the former existence of a decastyle portico. This must be Uhde's mistake, because the facts are fully stated in Messrs. Anderson and Spiers's "Architecture of Greece and Rome." The modillions of the Maison Carrée are normal to the slope of the pediment; the intention is apparently to contrast them with the case in which (much more correctly) they keep the vertical line; but the reason for the note should have been pointed out; and it is certainly rather unfortunate to choose an example which in fact is, in its present position, incorrectly set, and not as shown in the cut.

In the main, however, this publication is to be regarded as a collection of fine plates of Classic Orders and their details, arranged with an endeavour to render their relative scale. As such it is a splendid publication, and will take rank as one of the most important of its class.

Nature and Ornament. Vol. II. Ornament the Finished Product of Design. By Lewis F. Day. Pp. 284. (London: B. T. Batsford. 1909. 7s. 6d.)

A work from the pen of so accomplished an "ornamentist" as Mr. Day needs no recommendation from us. "Its purpose"—we quote from the preface—"is to discover the traces of natural form in ornament, even the most abstract, and seemingly, perhaps, quite independent of it; to examine and consider the 'treatment' natural form has, from first to last, undergone at the hands of the artist; and by aid of copious illustration to urge the necessity of studying art as well as nature—in short, to show what Nature herself stops short of showing, the use to make of nature in design." Ornament may be classified generally as naturalistic, conventional, and abstract; underlying all ornament, produced from whichever of these standpoints (with the possible exception of certain rectangular geometrical patterns), is the idea of growth. Once the human hand and eye have produced a curved line, foliation, conscious or sub-conscious, almost always follows, so that, speaking loosely, we may say that all ornament is based upon nature, the visualised material world. In other words, ornament that really is ornament will be found to suggest the principle of life, and, paradoxical as it may appear, naturalistic treatment is the least safe road by which to attain such a result. Along this road went Grinling Gibbons, tempted by a skill of hand which has been vouchsafed to few carvers before or since, and his journey ended outside the pale of ornament. Nothing could in reality be more lifeless than his festoons of fruit and flowers, imitated to the life though they may be. We cannot help admiring and examining each particular item as we would specimens in a museum, but there is no growth in them; were we deceived by their fidelity to nature we should see but plucked flowers hung upon the wall, a type of death as much as the dead game upon the walls of Chatsworth.

"Tot sæcula, tot sententiæ"; these are the objections of "narrow Gothicists." Mr. Day, however, has only strengthened

Vine: Stained Glass. By Mr. Lewis F. Day.

our opinion by his own precept and practice: his forty years of experience have brought him to the conclusion "that the purpose of ornament is to fulfil a decorative function: that so far from its being true that ornament is beautiful in proportion to its likeness to nature, it is most most beautiful when, apart altogether from any reference to natural form, it most conduces to the architectural or other decorative effect which was the one and only excuse for it." For these reasons the Classical acanthus has stood the test of time, and the early Gothic carving, where the very stone is made to burst into leaf and bud, "more suggestive than any transcript of nature," is true ornament; and the informing principle of both Corinthian capital and Gothic crochet is that of growth and life.

To the student of ornament we would recommend the following extract from the chapter on the "Force of Tradition":—"The masters of design may be presumed to have known something; and it is worth our knowing. Knowing it, one is in a position to judge whether or not it is worth following and how far to follow it. Self-satisfied reliance upon native insight will as surely lead us astray as blind adherence to precedent will prevent our possible escape from dulness."

The book is fully illustrated by examples of every age and country, including contemporary work by the author and Mr. L. P. Butterfield, who seems to us to have hit the golden mean in naturalistic treatment. We extract an excellent decorative rendering of the vine, designed for stained glass, by Mr. Day.

Proceedings of the American Society of Civil Engineers. Vol. XXXVI. No. 2. Pp. 302. (Published by the Society. New York. 1910.)

This part contains several lengthy papers and two discussions, most of them directly connected with building construction. Mr. A. Kempky describes "A Concrete Water Tower" built in the City of Victoria, British Columbia, on high ground "in the most exclusive residential district"—a situation making appropriate architectural treatment a matter of prime importance. The design illustrated is in good taste, and we are glad to see that the desired effect has been attained by simplicity and the avoidance of meaningless decoration. The chief value of the paper is to be found in the particulars and illustrations of structural details and methods of construction. "Some Mooted Questions in Reinforced Concrete Design" is the title of a critical paper by Mr. Edward Godfrey, who raised many points to which the attention of architects may well be directed. A paper by Mr. W. B. Gregory on "Tests of Creosoted Timber" fills a gap in literature dealing with the preservation of timber, for while ample data are available in America concerning the efficiency of preservative treatment for short periods, there is little information regarding its continued efficacy. The author gives the results of tests conducted by him on material which had been in a railway viaduct for twenty-six years. From the figures quoted it is clear that even after that lengthy exposure the material compares very favourably with new untreated timber of the same nature. "Federal Investigations of Mine Accidents, Structural Materials and Fuels, at the United States Testing Station, Pittsburg," by Mr. Herbert M. Wilson, is a communication giving a good deal of information about the conscientious and intelligent manner in which the United States Government perform duties that are ignored by our own authorities.

The United States Geological Survey have been engaged continuously since 1904 in conducting investigations relating to structural materials, including stone, clay, cement, iron and steel, and in considering means of increasing efficiency in the use of the national resources in such materials. Several well-equipped testing laboratories are at the disposal of the department, and their work has been of great value to the office of the Government Supervising Architect, as well as to other branches of the public service and the industrial classes at large. In the present issue will be found also two well illustrated papers on "The New York Tunnel Extension of the Pennsylvania Railroad," by Mr. B. F. Cresson and Mr. F. Lavis, respectively, and discussions on "Underpinning the Cambridge Building" and "Building Agreements."

The contents of the book generally are almost as useful to those engaged in the practical side of architecture as to civil engineers.

Engineering Construction in Steel and Timber. By W. H. Warren, Wh.Sc., M.Inst.C.E., Professor of Engineering, University of Sydney. Second Edition. Pp. 472. 18s. net. (London: Longmans, Green, & Co. 1910.)

Architects and engineers throughout the world are familiar with the valuable researches of Professor Warren into the properties of various materials of construction, and perhaps less familiar than they ought to be with his excellent treatise first published under the title, "Engineering Construction in Iron, Steel, and Timber," some sixteen years ago. Since then an enormous quantity of additional data on the physical properties of steel and timber has been supplied by scientific investigation, wrought-iron has been almost entirely replaced by mild steel, and modified methods have been introduced for calculating the safe intensity of working stresses in structures subject to moving loads. Hence the author has acted wisely in rewriting the first two chapters of his work.

Chapter VI., on "Bridges and Viaducts of Small Span in Timber and Steel," has been improved by the inclusion of worked examples more modern than those in the original edition. The strength of columns in Chapter XII. is now treated very completely in a manner that deserves the appreciation of practical designers, and Chapter XIII. on riveted joints has been considerably improved and brought up to date, the same remark applying to Chapter XIV. on wind pressures. The remainder of the treatise dealing with various kinds of bridges has been carefully revised and partly rewritten. In its present form the work is one which we recommend with full confidence to architects, engineers, and students of both professions.

The Employers' Liability Act, 1880, and the Workmen's Compensation Act, 1906. By His Honour Judge Ruegg. Eighth Edition. Pp. 980. London; Butterworth & Co.; 1910. 25s.

Previous editions of this important work have been noticed in our columns. When the book was first issued in July, 1906, the Workmen's Compensation Act had only just come into force, and consequently the book contained no decisions of the Courts in regard to the working of the Act. Since then a large number of decisions have been given, many of the most important of which have been recorded and commented on in our columns. The present edition gives all the cases of importance which have been decided since then.

The decisions on the Employers' Liability Statutes in force in Canada have been added in the form of foot-notes, and the Statutes themselves are added as an appendix. The Canadian notes are by Mr. F. H. C. Reddern, of the Ontario Bar.

Paints for Steel Structures. By Houston Lowe. Fifth Edition. Pp. 115. (New York: John Wiley & Sons. London: Chapman & Hall, Ltd. 1910. 4s. 6d.)

The author of this little book is a paint-maker of long experience. The book contains information which will be useful to those who are not familiar with the commonly accepted doctrines relating to the painting of iron and steel, but we find little in the book that is not already well known to most architects and engineers. The author agrees that linseed oil is still the best of the paint oils; and that red lead, when properly applied, remains the best prime coating for steel. He points out that the surface of the metal should be quite dry when it receives the red lead, and advocates moderate heating of the metal immediately before the application of the red lead. When it is impracticable to heat the metal, it is a good plan, says Mr. Lowe, to use paint heated to a temperature of about 150° Fahr. He very properly issues a caution against painting over the prime coat with another paint before the prime coat has become dry.

On page 16 the author remarks that varnish or resin paints are more sensitive to changes of temperature than oil paints, and apt to adhere less satisfactorily to damp surfaces; but that for painting under ideal conditions, which are not readily attained, varnish paints can be made which will outwear on steel the best oil paints. On page 43 he says that in locations that are ill-ventilated, that get no sunshine, that are damp, and filled at times with steam and acid gases, he has found varnish or resin paint better than oil paint, especially where a prime coat of red lead has been used. These two statements are rather contradictory.

The Young Carpenter. By Cyril Hall. Pp. 275. (London; Methuen & Co. 5s.)

This is an attractive book for boys who desire information and instruction in the art of woodwork. It is not a text-book, but an admirable attempt to excite the enthusiasm of the beginner by appealing to his sense of fitness, which is the basis of all good craftsmanship and all good design. The book is readable and full of homely truths and practical hints. It would help many parents to understand what a boy requires in the way of outfit before a beginning is made, and help them to realise that they are encouraging their boy to what may well become a lifelong hobby of a very useful, educative, and healthful kind. It is probably true that the only way to prevent the natural tendency of destruction implanted in every right-constituted boy is to cultivate the instinct of construction. To those who understand the difficulties of teaching it is no slight praise to say that Mr. Hall has succeeded in imparting his instructions without the tediousness of the exercise book treatise.

Shipping Marks on Timber. 1909 edition. Pp. 98. (London: W. Rider & Son. 7s. 6d.)

This is a tabulated list of shipping marks on timber from ports in Sweden, Norway, Finland, Russia, Germany, Canada, and the United States, and embraces soft and planed wood, joinery, and other hard and soft woods. The tables are in columns showing the port and name of shipper, description, average production, and five columns of marks indicating quality. An alphabetical list of shipping marks is added, as far as these can be arranged from the lettering employed.

Jordan's Tabulated Weights of Iron and Steel. By Chas. H. Jordan, M.I.N.A. Sixth Edition. Pp. 640. (London: E. and F. N. Spon, Ltd. 1909.)

This is probably the most comprehensive collection of tables published for the use of those requiring to calculate the weights of rolled steel sections employed in structural work. It is evidently intended chiefly for shipbuilders, and therefore can only be of limited utility to our readers.

MAGAZINES AND REVIEWS.

In the *Art Journal* there is an article of some interest on the subject of Girtin's Aquatints, by Mr. Luke Taylor, explaining the process by which these works, a mingling of line and wash, were produced. The ordinary etched line would have been too hard to have combined well with the wash; the actual process is described as follows:—

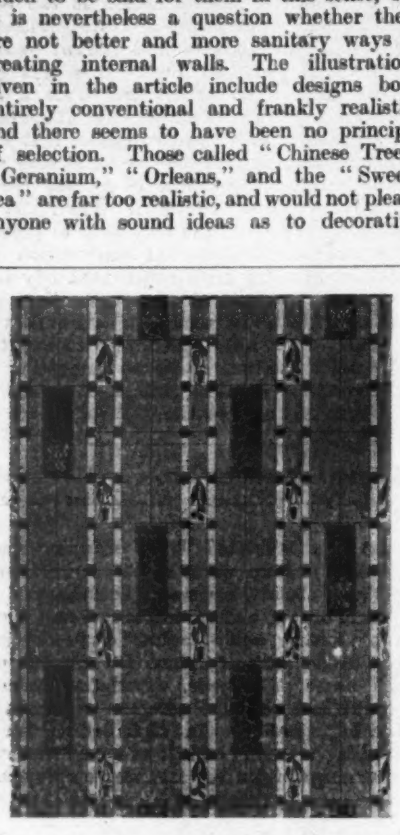
"The ground is laid in the same way as for ordinary etching, but a small amount of fat is added, so that the wax does not set hard, but remains slightly sticky when the plate is used. A thin sheet of paper is now strained over the wax ground, and upon this the drawing is made. The pressure of the pencil causes the paper to adhere to the soft ground, and when the paper is taken away from the plate, the ground is pulled away too, leaving the copper exposed in lines corresponding to the lines made by the pencil. These exposed lines vary considerably, according to the grain of the paper used. It will be easily understood that when the plate is immersed in the acid bath, the line bitten will be of a soft, ragged quality in contrast to the ordinary etched line."

As the author of the paper remarks, the impressions of some of the drawings in this stage are exceedingly charming, the effect being that of line etching with a soft and pencil-like line. After this Girtin put his own effect upon the drawing with a wash,

and handed it to the aquatinter, who put on the washed portions a ground consisting of minute particles of resin or asphaltum dust, fixed to the plate by a process of heating or evaporation :—

"The acid attacks the copper through the small spaces left between the particles of resin, so that numbers of tiny holes are bitten in the plate so close together as to look, when printed, like a wash of water-colour. These holes are bitten various depths, according to the depth of tone required on the work."

The continuation of the article on "Wall-papers" commences by a kind of apology for them as a means of supplying an artistic treatment of wall surfaces for those who cannot afford costly panelling. There is much to be said for them in this sense, but it is nevertheless a question whether there are not better and more sanitary ways of treating internal walls. The illustrations given in the article include designs both entirely conventional and frankly realistic, and there seems to have been no principle of selection. Those called "Chinese Tree," "Geranium," "Orleans," and the "Sweet-pea" are far too realistic, and would not please anyone with sound ideas as to decorative



The "Sidcup" Wall-paper (Messrs. Jeffrey & Co.).

design; possibly they did not please their designers, but were drawn to supply a demand. Designs which, like the "Arbutus" and the "Solanium," preserve realism in details of leafage, but reduce the whole to a comprehensive flowing pattern in conventionalised curves, are much more defensible; they suggest growth in a pleasing form, without imitating natural growths. The "Ilex," however, can hardly be classed with these; it is too confused in detail and too uncertain in line. Among the conventional designs the "Sidcup," of which we give an illustration, represents rather a new and effective idea in wall-paper.

The article in the *Burlington Magazine* of most importance to our readers is that by Mr. A. E. R. Gill on "Inscriptions"; that is, of course, on the artistic element in the lettering employed. The article is however chiefly of interest in respect of the examples of lettering, including a very fine one from Trajan's column. The general tenor of the article is the old story that has been repeated so often lately in one form or another, that the poor forms of modern lettering are only the fault of the designer, and that if the workman was left to do his own lettering he would do it much better and evolve a style in lettering; and there is the old foolish fallacy repeated that the Gothic cathedrals were only the designs of the working masons. The real reason why poor lettering is so common in the present day is that the subject has been neglected and no effort made to do the best, though there is a considerable reaction setting in now. Any man who cuts letters has to draw them first on the stone; and the theory that designs will be inferior if drawn by a man who does intend to cut them with his own hand is absurd. The number contains rather an odd letter to the editor by Mr. W. J. Loftie in regard to the proposed destruction of Bath-street, Bath, written as if the writer had only just heard of the matter and was calling attention to it for the first time, after it has been the subject of discussion in our columns and elsewhere months ago. The number includes some fine illustrations of bronzes in the Salting collection, and an article by Mr. Roger Fry on "Bush Paintings"—"drawings" should rather have been the word; also rather an old subject, which has been discussed and illustrated many times.

The *Architectural Record* (New York) contains an article on "Factories and their Fire Protection," by Mr. F. H. Wentworth, Secretary to the National Fire Protection Association (of the United States, we presume). He has much to say in favour of wood beams as against steel, provided they are of large scantling and at considerable distances; giving a photograph taken after a fire where a timber of 10 in. by 8 in. section, though charred, remained practically uninjured, while the steel beams were all distorted and twisted; a curious point being that the wooden beam had only been inserted as a makeshift because the specified number of steel girders had not been forwarded in time. An article on "The Brooklyn Heights Casino" is the text for some remarks on the treatment of blank walls, a subject of some architectural interest, illustrated by some significant examples taken from American buildings. Some much finer ones might have been found however from mediæval work in Spain, which would have suggested new ideas for translation into modern detail. An illustration of the pylon of a new bridge at Borsig, Berlin, is worth attention, and rather justifies the conclusion of the author of the article, Mr. Montgomery Schuyler, that the Germans, less under the domain of the Classical Orders, have better perceptions than the French as to the treatment of bridge architecture. He admits that in the United States they are still at the mercy, in the matter of bridge design, of the possible existence of some degree of æsthetic perception on the part of the engineer (as we also are in England), and strongly urges that in all cases an architect and an engineer should be appointed on such work from the first.

The *Berliner-Architekturwelt* is entirely occupied with illustrations of one large establishment, the showrooms of MM. Keller & Reiner at Berlin. They show some fine and original treatment of interiors. Herr Bruno Schmitz appears to be the general architect, but special rooms are designed by other architects.

Concrete and Constructional Engineering gives a well-illustrated account of some important works in Hennebique ferro-concrete executed at King's Dock, Swansea, followed by a suggestive article by Mr. Albert Moyer on the "Possibilities of the Uses of Mineral Oils Mixed with Concrete," a subject worthy of further investigation. By the addition of oil in proportions of from 5 to 15 per cent. the initial and final set of concrete is somewhat retarded, tensile strength is reduced, and toughness is increased. One point to be remembered by the inquirer is that the disintegrating effect of animal and vegetable oils on concrete is quite distinct from the beneficial influence claimed for the emulsified admixture of mineral oils in the same material. While conclusive results are still lacking, there is a possibility that oil-mixed concrete may prove advantageous for stucco and other surfaces particularly liable to contraction cracks, and in structures where impermeability is specially important. A succeeding article entitled, "Tests on Reinforced Concrete Conducted in Great Britain" contains several tables of results obtained by Messrs. Kirkaldy by testing columns, beams, and cubes for H.M. Office of works in connexion with the extension of the General Post Office. Space will not permit us to comment in detail upon these data, which, however, are of much interest to our readers.

The *Illuminating Engineer* contains a report of the resumed discussion on "Glare" by the Illuminating Engineering Society, held last month in the lecture-room of the Royal Society of Arts. A considerable number of speakers took part in the discussion, and it was again evident that different persons have very different notions concerning the meaning of the word "glare." Mr. Gaster said that even a moderately illuminated surface can give rise to the impression of glare if the light rays come to the observer in the wrong direction; but Professor Silvanus Thompson did not think that the effect of stray light coming into the eye could be called glare, and said that he should be sorry to accept Mr. Baugh's conclusion that glare only exists when we see an after-image. After-images may be produced with illuminants of very low power, and are then certainly not the result of glare. A short article on "The Lighting of the Patent Office Library," by "An Engineering Correspondent," will interest those of our readers who often visit that useful building.

The *Antiquary* contains an account by Mr. A. Montgomerie Bell of "A Visit to the Neolithic Hut-Circles of Jeneffe by the Archæological Congress of Liége," in August of last year. Jeneffe is a village about 13 miles from Liége; the investigations resulted in the discovery of a number of flint implements, but apparently all for peaceful operations, no arrow or axe heads being found. Mr. G. X. Betham contributes an article on "The Ancient Kanarese City of Kop," on the Kanara coast in India, which rather requires some illustrations. The article on "The Episcopal Mitre" and its history, by Dr. Fairbank, with some sketches, may be of interest to designers of stained glass windows or of pictures dealing with mediæval ceremony.

Under "The Field of Art" *Scribner* publishes an article by Mr. F. J. Mather, jun., on "The Luxembourg and American Painting," which seems to be pretty fairly represented in that gallery. In the course of the article the author gives some explanation as to the precise position of the Luxembourg and the system on which it is kept up, a matter which is perhaps not generally understood :—

"We often say loosely that a picture has been 'bought by the Luxembourg.' As a matter of fact this gallery buys nothing, but exists merely as a centre of exhibition and distribution. The French Ministry of Fine Arts, in accordance with long precedent, purchases every year a number of works from the chief exhibitions, and these acquisitions are disposed of chiefly through the staff of the Luxembourg Gallery. It is thus in the odd and not wholly enviable position of a museum that does not control its own buying—a fact that criticism has not always remembered. The Luxembourg maintains a permanent, if slightly changing exhibition of modern art. It distributes many of the ministerial purchases to provincial galleries; some immediately, others after temporary exhibition at Paris. Finally, and surely its most important function, by a sort of probationary ordeal, extending usually over a generation, it sifts out of the current production the comparatively few works that prove themselves worthy of promotion to the Louvre."

The *Century* gives an engraving of what is believed to be the earliest drawing by Whistler that has been published, done when he was a cadet at West Point. It appears to be a title-page of a piece of music, a "Song of the Graduates," and presents not the slightest hint of the artist Whistler as now known to fame. There is also a fine engraving by Mr. Cole after Joseph Bail's picture "La Ménagère," forming No. 16 of a series of engravings after French masters.

London: Printed for the Proprietors of "The Builder" by Horace Cox at Windsor House Printing Works, Bream's-buildings, E.C., and Published by John Morgan at the Office of "The Builder," No. 4, Catherine-street, Strand, W.C.—March 19, 1910.

Royale—from altering the façade. They have relied on an ancient "servitude" imposed by letters patent of Henri IV., dated 1605, which "impose pour toujours le maintien intégrale des façades de la Place Royale"; and the owner has been compelled to pull down his alterations and restore the façade to its original design. The success of this action will probably have a considerable effect in checking the deformation of some of the old Paris streets and squares.*

MM. Tavernier & Avella, architects, of Paris, have obtained the first prize in a competition opened for a new Hôtel de Ville at Essonnes (Seine et Oise).

M. Foucault, the architect, has finished the portion of the new buildings of the Carnavalet Museum bordering on the Rue Sevigné. They will be completed by another block to be built later facing the Rue Payenne, and which will enclose a large rectangular courtyard communicating by arcades with the garden of the museum. The new buildings, to which access is gained by a large new staircase, will be shortly opened. The staircase will be a reproduction of that in the old Hôtel de Luynes, and M. Foucault has arranged to have displayed on its walls the original frescoes, of the XVIIth century, painted for the Hôtel de Luynes by Brunetti.

It is found that the inundations at Paris have not done by any means so much damage as was expected to Belgrand's system of sewers. Of the vote of 1,700,000 francs demanded by the Muncipal Council for repairs, only the 700,000 is required for the sewers.

A new church has been opened at Ménilmontant; and it is rumoured that the erection of about fifty new churches is contemplated in Paris, out of funds to be subscribed "par les fidèles."

A Committee has been formed to found a large establishment, under the title "Cité Libre des Artistes et Littérateurs," which is to form a home or retreat, a sanatorium, and an orphanage, for artists young and old—a kind of Villa Medici with open doors. A site has been purchased and it is expected that building will be begun almost immediately.

The Committee of "Sites on the Department of the Seine" has classified the fort of Mont Valérien as an "edifice historique."

The excavations undertaken at Turbia, above Monaco, under the direction of M. Formigé, chief architect to the "Monuments Historiques" Department, have led to the discovery of the remains, in sufficient preservation to allow of a restoration, of a monument erected in the year 5 B.C., by the Roman Senate, in honour of Augustus.

The artists who are members of the Old Salon and the New Salon have alike determined to take no part in the fine-art exhibition at Rome, in consequence of the managers of the French section having shown an evident leaning towards making the exhibition a demonstration in favour of Impressionistes and "Artistes Independants."

THE INSTITUTE OF BRITISH DECORATORS:

ANNUAL DINNER.

THE annual dinner of the Incorporated Institute of British Decorators was held on Monday at "The Trocadero," Piccadilly Circus, Mr. J. D. Crace, President, in the chair, supported by the Rev. H. D. Macnamara, M.A., Chaplain of the Painters' Stainers' Company, and Messrs. G. Hillyard Swinstead, R.I., R.B.A., A.R.C.A., J. Brown, President of the National Association of Master Painters for England, M. Cowtan Cowtan, J. M. Orr, W. W. Macfarlane, F. Carpenter, A. Sanderson, W. G. Sutherland, J. Sibthorpe, G. M. Hall, P. Heffer, J. W. Garson, W. Stewart-Greene, W. Callingham, J. Anderson, J. R. Chappell, F. G. Dear, F. Cowtan, W. N. Bridges, F. W. Englefield, Secretary, and others.

The loyal toasts having been honoured, Mr. W. G. Sutherland proposed the toast of "The Institute of British Decorators," coupled with the name of the President. Having referred to the origin of the Institute, he said it had not done all that was anticipated from it, but where it had failed it had failed because the members had not thoroughly appreciated their part of the work. The Institute had had a splendid President in Mr. Crace, and some of them may have thought that Mr. Crace had but to turn the wheel for the work to be done; but that was not the way that other Institutes had been made successful. He had been much struck by the remarks of Mr. J. W. Simpson, made to a meeting of Newcastle-on-Tyne architects recently. Mr. Simpson asked his hearers to think not so much of what the Institute of Architects had done for them as what they had done for the Institute. It was patent to all, said Mr. Simpson, what the Institute had done for them; it had placed its members on a high level, and given them privileges which they could not have had but for what it had done; but what had they done for the Institute? That was a question which might be put to the members of the Institute of British Decorators; what had they done for it? If more thought were given to that point he believed there would be a great accession of membership. The Institute had passed into the respectable stage, for he found from the balance-sheet that they had invested funds, and any Society which had invested funds had taken a long step forward to solidify its position. But they owed that to the generosity of their Secretary, Mr. Englefield, who made a splendid offer to the members two years ago, which was followed by an equally generous response by their President, and the response which the districts had made in emulation of these gentlemen. It was a step in the right direction to get this fund, and to be able to apply it to some useful purpose. If they could only realise that it was their duty as members of the Institute to do all they could to extend its usefulness by the reading of papers and in any other way, it would soon take its proper place amongst the principal professions. He might mention that it was proposed to elect Mr. Campbell to the Council of the Institute, and he was glad of that, because more help was needed from the decorators of London. There was an immense field in London for useful work, and they should get a large accession of members from London by uniting themselves together. Country members could not meet together as London members could.

The President, in response, said he believed the present was the tenth dinner they had held since the foundation of the Institute, and he felt very much identified with the Institute and its fortunes. Mr. Sutherland had brought home to them, he hoped, that the President was not the only person who could exert himself to make the Institute a success. The object of such an Institute was mainly to bring together men engaged in the same profession and to let them know something of each other, and to compare experiences and to discuss difficulties by reading papers, etc., and get the advantage of doing that. The most talented man, when he put his ideas into form, would find that someone else would probably see a fresh point of view or the defect of an argument, and the question could be dealt with in discussion. Whatever the advantage to others might be, there was no doubt that the preparation of a paper was of value to its author, and for the reason he had already given. It was most unfortunate that more opportunities had not been afforded by the reading and discussion of papers and that London members of the Institute, especially, had not come forward more than they had to lay their ideas before their professional brothers. If the Institute was to prosper it would not be brought about by engaging lecturers, but by the interchange of ideas between member and member by the reading of papers, and in other ways. The prosperity of the Institute would not come about by numbers so much as by the use the members made of it. He had been their President for ten years, and he felt that the time had come for younger blood in the control and management of the Institute; but neither President, nor Council, nor officers could make the Institute a success if the members did not do their part. It must not be forgotten that there were not an indefinite number of men qualified to join the Institute—not many men who could think out schemes of decoration and be able to treat their subject from the standpoint of art. He did not wish to underrate the commercial side of the calling, for that was very important, and without that quality the calling could not prosper; but that was not a matter for the Institute, among the objects of which were the discussion of art subjects connected with decoration and the raising the standard of conduct between each other in the course of honourable competition. Competition was inevitable, but it should be honourable and self-reliant, and that was what the Institute tried to inculcate. They wanted to raise the self-respect of those engaged in a very beautiful calling.

Mr. F. Cowtan then proposed "The National Association of Master Painters of England, Wales, Scotland, and Ireland," and specially referred to the social side of the work of these associations, which, he said, was very valuable in enabling men to get acquainted with each other.

Mr. Brown, of Newcastle (President of the English Association), first responded, and said the associations had done something during the time they had been banded together to advance the craft. In Newcastle they had had an association for twenty-five years, and his father was President of it for many years. It did much good, but nothing like so much good as had been accomplished since the National Association had been formed some seventeen years ago. The National had a good membership, but he hoped to see it doubled. A great deal had been done for young decorators in recent years, and those who had had the advantage of going abroad had improved greatly. It was the desire of the members to bring about a higher feeling of respect for the trade and to help other trades, especially the building trade.

Mr. Orr, Vice-President of the Scotch Association, said that in the Institute the National Association had an invaluable ally. Had the Institute done nothing more than arrange sketching parties and Continental tours and the lectures and discussions in Painters' Hall it would have amply justified its existence. In Scotland they valued the Institute, and would help it all they could.

Mr. Sibthorpe replied for the Irish Association, and said that the Institute was trying to teach that it was quality that paid; that it was better to do a little well, to work for a small public, and by degrees perform a noble and ennobling task—to level upwards, having themselves reached the top. The influence thus exercised would permeate through the lower grades of the craft.

The concluding toasts were, "The Guests" and "the Secretaries," both proposed by the President. Dr. Macnamara and Mr. Hillyard Swinstead replied for the guests, and Mr. Englefield for the secretaries, and the proceedings terminated.

PROPOSED STREET IMPROVEMENT, HARWICH.—Mr. A. W. Brightmore, Inspector to the Local Government Board, held an inquiry recently into the application of the Harwich Corporation to borrow 1,400*l.* for the widening and improvement of Fronks-road, Dovercourt, and a further sum of 500*l.* in respect of works of sewerage at Upper Dovercourt. The Town Clerk, Colonel A. J. H. Ward, gave particulars of the proposed works. Mr. Ditcham, the Borough Surveyor, was present at the inquiry.

*It might surely be a lesson to us in London also, where some fine XVIIIth century streets have been allowed to be entirely spoilt at the caprice or cupidity of private owners.

THE ARCHITECTURAL ASSOCIATION FIFTH SPRING VISIT:

KING'S COLLEGE HOSPITAL.

BY kind permission of the architect, Mr. W. A. Pite, a visit was paid on Saturday, February 12, to this building at Denmark Hill. Mr. Pite himself conducted the party and explained both the whole scheme and the part now building with the aid of an excellent display of drawings.

Little departure has been necessary from the general scheme for rebuilding as published in the *Builder* for May 27, 1905, though a few modifications in detail and many in internal arrangement have been made. The site has a frontage of about 560 ft. to Denmark Hill, and a return frontage of about 940 ft. facing north to Bessemer-road. The fact that the ground rises sharply (about 15 ft. in all) from this front to the south has been cleverly seized as the motive for bisecting the hospital by a main corridor running east and west from end to end, placing the wards on the higher level at the south or inner side of the site, where they enjoy an open prospect over Ruskin Park, and disposing the other buildings in extended order next Bessemer-road as a main frontage, with the principal apartments on the level of the wards, above a basement containing all the stores, kitchens, etc. The buildings in course of erection are the outpatients' and casualty department, together with bathing establishment, electrical and dental departments and dispensary (all approaching completion), and the central administrative block, now raised to ground floor level.

The chief entrance for patients is near the north-east angle of the site, where, after passing the porter lodge, a courtyard 40 ft. wide is gained, having the casualty, out-patients' and in-patients' entrances respectively to left, right, and in front. The out-patients' department is grouped around a central waiting-hall, 92 ft. by 42 ft., and 30 ft. high, which is surrounded by a top-lighted corridor 6 ft. wide, off which open the various consulting-rooms. This section is so planned that patients, after receiving attention, do not need to retrace their steps, but find their way direct to the dispensary, after which they depart by an outside path to Bessemer-road. The several sections of the out-patients' department comprise surgical, ophthalmic, skin, gynæcological, ear and throat and nose, medical, children, and whooping cough, the latter not being approached through the waiting-hall, and having a separate exit. Operating-rooms are provided to the surgical, ophthalmic, and throat sections, and isolation rooms are provided for the immediate receipt of any patients discovered to be suffering from infectious complaints.

The dispensary and the bathing establishment both serve the hospital generally as well as out-patients, and lie between the out-patients' department and the main cross corridor. The bathing accommodation is dual for both sexes, and comprises vapour baths, douches, and various special forms. In the basement below the dispensary are drug stores and laboratories, approached from the same cartway as the general stores opposite in the administrative block. On the first floor is the dental department, with a north light, and an electrical department with special rooms for Finsen light, high frequency, radiograph, and massage treatment. A very interesting section is the observation ward, planned on the cellular principle, after the model of the Pasteur Institute in Paris, but with improvements in detail. This is practically a small self-contained hospital of eight single-bed wards on either side of a central corridor, and separated only by thin screens glazed in the upper parts. Each ward has both doors to the corridor, and one to the flat roof outside, providing an external route for the nurse to reach the slop sinks, etc. The corridor is roofed considerably lower than the ward ceilings, permitting windows for cross ventilation above, and a vertical glass baffle is placed centrally to prevent a direct blow across from one such window to that opposite.

The walls internally, where not faced with glazed brick or terra-cotta, will be finished in granite plaster and painted with paripan, and all floors will be terrazzo or other jointless material, with coves formed *in situ*. Externally, a quiet treatment of Georgian character in stock brickwork with red brick and stone dressings has been adopted. The heating and ventilating system has been designed by Professor Capper. All the air extract trunks are circularly formed in concrete on the flat roofs. Messrs. Foster & Dicksee have executed the work with a precision which excited much admiration.

THE LONDON COUNTY COUNCIL.

THE first meeting of the newly-elected London County Council was held on Tuesday in the County Hall, Spring-gardens, S.W., when the following gentlemen were elected:—As Chairman, Mr. Whitaker Thompson; as Vice-Chairman, Mr. Cyril Cobb; as Deputy-Chairman, Mr. A. J. Shepheard.

A Battersea Improvement.—The Improvements Committee recommended that the estimate of expenditure on capital account of 23,250*l.*, submitted by the Finance Committee in respect of the Battersea Park-road and Battersea Bridge-road improvement, be approved.

This was agreed to.

School Repairs on Schedule.—It was agreed that the offer of Messrs. F. & T. Thorne to carry out at schools situated in the county electoral divisions of Limehouse and St. George-in-the-East repairs on the schedule of prices, with percentages added thereto as stated below, be accepted.

(i.) For repairs, measured work, 10 per cent.; (ii.) for sanitary, measured work, 15 per cent.; (iii.) for daywork, generally, 10 per cent.

Selected List of Contractors.—The following recommendations were agreed to:—

(*a*) That the name of H. Groves, Stockwell-street, Greenwich, S.E., be added to the selected list of contractors to be invited to tender for new schools and enlargements not exceeding 5,000*l.* in value; and that the limit up to which H. Groves shall be invited to tender for structural alterations, etc., be increased from 3,000*l.* to 5,000*l.*

(*b*) That the names of the undermentioned firms be added to the selected list of contractors to be invited to tender for structural alterations, repairs to buildings, painting and cleaning, subject to the condition specified in each case—(i.) Spiers & Pond, Ltd., 35 to 38, New Bridge-street, E.C., for works not exceeding 2,000*l.* in value; (ii.) Sharpe & Hodsoll, 3, Whitehorse-lane, South Norwood, S.E., for works not exceeding 500*l.* in value; (iii.) James Stokes & Sons, High-street, East Ham, E., for works not exceeding 500*l.* in value.

(*c*) That the name of J. D. Hobson, Ltd., 7, Duke-street, Adelphi, W.C., be added to the selected list of contractors to be invited to tender for repairs, painting, and cleaning.

(*d*) That the name of Boulton & Paul, Rose-lane Works, Norwich, be added to the selected list of contractors to be invited to tender for heating apparatus.

(*e*) That the name of J. & A. Law, Rae-street Foundry, Glasgow, be added to the selected list of contractors to be invited to tender for providing and erecting iron staircases.

(*i*) That the names of E. Lawrence & Sons, Ltd., 14 to 16, Wharf-road, City-road, N., and D. W. Davies & Howell, Morgan-chambers, St. Mary-street, Cardiff, be substituted for those of E. Lawrence & Sons and D. W. Davies, on the selected list of contractors to be invited to tender for works to Council schools.

(*j*) That, until they have carried out work at Council schools the names of the undermentioned firms be retained, on probation, on the selected list of candidates—(i.) W. H. Pratt, 6, Mason's Arms-yard, Maddox-street, W.; (ii.) The Shelby Manufacturing Company, Hanover-street, Peckham, S.E.

(*k*) That the names of the undermentioned firms, whose period of probation has expired, be retained on the selected list of contractors to be invited to tender for works to Council schools—(i.) Griggs & Son, 71, Manchester-road, Cubitt Town, E.; (ii.) Franks & Simons, 364, Mile End-road, E.; (iii.) Globe Window Cleaning Company, 186, Burdett-road, E.

Preference for London Men.—It was announced that in connexion with the tender of T. D. Leng for new laundry and housewifery centres at Limehouse, that from inquiries made the whole of the labour, skilled, unskilled, and casual, had been performed by men *bonâ fide* resident in London, in accordance with the resolutions of the Council.

Crosby Hall.—Mr. Pilditch reported that the land in Danvers-street, Chelsea, on which the fabric of Crosby Hall is to be re-erected, had been conveyed to the Council, and the University and City Association of London, Ltd., had taken up the agreement for a building lease in accordance with the preliminary agreement with the Council.

The Works Department.—The following resolution was placed on the agenda by Mr. Geo. Lansbury:—"That, in view of the facts disclosed by the General Purposes Committee report published on the agenda for March 1, 1910, concerning the returns of work executed by the Works Department of the Council during the period 1892 to 1909, this Council is of the opinion that steps should be at once taken to reorganise a Works Department in order to safeguard the interests of the people of London, and that it be referred to the General Purposes Committee to consider and report as early as possible as to the most speedy and efficient methods to be adopted to give effect to such a reorganisation."

The Council, however, did not reach the "notice of motion" resolutions, and it may be many months before this comes on for discussion.

APPLICATIONS UNDER THE LONDON BUILDING ACTS, 1894 to 1909.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Acts, 1894 to 1909. The names of applicants are given in parenthesis:—

Lines of Frontage and Projections.

Brixton.—Deviation from the plan approved for the erection of buildings on the site of Nos. 166 to 174 (even numbers only), inclusive, Acre-lane, Brixton, so far as relates to an increase in the height of the building to be erected on the site of Nos. 166 and 168, Acre-lane (Messrs. Freeman & Co. for Mr. H. C. Philcox).—Consent.

Camberwell, North.—Retention of a sign at the New King's Hall, Camberwell New-road, Camberwell (Messrs. F. Matcham & Co. for Mr. F. W. Purcell).—Consent.

City of London.—Two balconies on the Cornhill frontage and two balconies and a projecting architectural feature on the Lombard-street frontage of a building to be erected on the site of Nos. 13 and 14, Cornhill, and No. 78, Lombard-street, City (Messrs. Gibson, Skipwith, & Gordon for the Scottish Equitable Life Assurance Society).—Refused.

Fulham.†—The erection at No. 12, Ongar-road, Fulham, of a conservatory over an existing porch, an addition to such porch, and two lean-to sheds all to abut upon the southern side of Sedlescombe-road (Messrs. J. West & Sons for Mr. J. Benattar).—Refused.

Hackney, Central.—An addition to No. 110, Southgate-road, Hackney, to abut upon the northern side of Upton-grove (Messrs. H. Bradford & Sons for Mr. M. B. Olley).—Consent.

Hackney, North.—The erection of a Methodist church building on the northern side of Southwold-road, Hackney, to abut also upon the western side of Theydon-road (Messrs. T. E. Davidson & Son).—Consent.

Hammersmith.—A building on the site of Nos. 271 and 273, King-street, Hammersmith (Messrs. Worleys & Armstrong for Messrs. Story & Co.).—Consent.

Hampstead.—A one-story wooden bay window in front of No. 21, Bracknell-gardens, Hampstead (Mr. C. H. Saunders for Mr. J. Tomblin).—Consent.

Hampstead.—One-story shops on the north-eastern side of Edgware-road, Hampstead, to abut also upon Rondu-road and Manstone-road (Mr. R. Plumbe for Dr. J. J. Acworth).—Consent.

Hampstead.—Porch in front of No. 25, Lyndhurst-road, Hampstead (Mr. C. H. Saunders for Mr. J. Tomblin).—Consent.

Hampstead.—An iron and glass hood in front of No. 23, Elsworthy-road, Chalk Farm (Messrs. Hawkins Brothers for Mrs. Faber).—Consent.

Hampstead.—An iron and glass covered way in front of No. 12, St. John's Wood-park, Hampstead (Mr. W. Daniell for Mr. H. Hart).—Refused.

Islington, East.†—Buildings at the flank and rear of No. 5, Drayton-park, Islington, to abut upon Benwell-road (Mr. G. Carter for Messrs. Sansome).—Consent.

Kennington.—An iron and glass roof at No. 68, Wandsworth-road, Vauxhall (Mr. E. Cannell for Messrs. Rugg & Sons).—Consent.

Kennington.†—A projecting sign in front of Nos. 66 and 68, Wandsworth-road, Vauxhall (Automobile Carriage Builders, Ltd.).—Consent.

Kensington, South.—A wood and glass covered way at No. 10, Warwick-road, Kensington, to abut upon the northern side of

Earl's Court-square (Messrs. Duncan Tucker & Sons, Ltd., for Mr. E. C. Halson).—Consent.

Norwood.—Wooden bay windows and oriel windows to houses abutting upon the northern side of Leigham Court-road and the southern side of Knollys-road, Streatham-hill, and the erection of sham half-timber work to the easternmost house in Leigham Court-road (Messrs. J. S. Quilter & Son for Messrs. F. T. Wooding & Son), and the erection of the westernmost house in Leigham Court-road.—Consent.

Paddington, South.—A projecting illuminated sign in front of No. 100, Westbourne-grove, Paddington (Messrs. Hawkin & Baxter for Messrs. W. H. Smith & Sons).—Consent.

Paddington, South.—The retention of a timber perch at Messrs. Speedy & Co.'s timber yard on the western side of Carlton-terrace, Westbourne-park (Messrs. H. D. Speedy & Co.).—Refused.

St. George, Hanover-square.—A bay window and the enclosing of a porch at the Oriental Club, Hanover-square, St. George, Hanover-square, to abut upon the southern side of Tenterden-street (Messrs. Howard & Sons, Ltd., for the Oriental Club).—Consent.

St. George, Hanover-square.—Retention of a projecting iron and glass pent roof over the area at the rear of Nos. 243, 245, 247, and 249, Regent-street, abutting upon Swallow-place (Mr. E. H. Abbott).—Consent.

St. George, Hanover-square.—The retention of two illuminated signs on the iron and glass shelter at the entrance to the Grosvenor Hotel, Buckingham Palace-road, Pimlico (Mr. J. Peters).—Consent.

St. George, Hanover-square.—That the application of Messrs. E. George & Yeates, for an extension of the period within which the erection of a porch at No. 17, Grafton-street, St. George, Hanover-square, to abut upon Albemarle-street, the refacing of such building next to Grafton-street, the erection of a lift next to Grafton-street, and the refacing of No. 24, Albemarle-street on the ground story, was required to be commenced, be granted.—Consent.

St. Pancras, South.—A crane at No. 12, Little Howland-street, St. Pancras (Messrs. Thurston & Co.).—Refused.

Strand.—A projecting crane and hinged flap in front of a building on the northern side of George-yard, Charing Cross-road, Strand (Mr. R. St. A. Roumieu for Messrs. Crosse & Blackwell, Ltd.).—Consent.

Strand.†—Two shelters at the London Coliseum, St. Martin's-lane, Strand, one to abut upon St. Martin's-lane, and the other upon May's-buildings (Messrs. F. Matcham & Co. for the London Coliseum Syndicate, Ltd.).—Refused.

Strand.—Retention of four electric arc lamps and a projecting sign in front of the London Pavilion Music-hall, Piccadilly-circus (Messrs. Wylson & Long).—Consent.

Strand.—A projecting sign in front of No. 23, Panton-street, Haymarket (Messrs. F. Sage & Co., Ltd., for Messrs. Lloyd & Co.).—Consent.

Wandsworth.—A building on the eastern side of Garratt-lane, Earlsfield, to abut upon the southern side of Algarve-road (Messrs. Emden, Egan, & Co. for the London Concessions and Construction Syndicate, Ltd.).—Consent.

Wandsworth.†—Retention of a one-story building on a site on the northern side of Upper Richmond-road, Putney, adjoining the East Putney and Wimbledon line of the London and South-Western Railway Company (Messrs. W. J. Penrose & Co.).—Consent. Buildings marked C on plans (Messrs. W. J. Penrose & Co.).—Refused.

Westminster.—An additional story to two bay windows at Block No. 1, Westminster-mansions, Great Smith-street, Westminster (Messrs. F. & E. W. Cooper).—Consent.

Width of Way.

Bethnal Green, South-West.—A deviation from the plans approved for the erection of buildings on a site abutting upon Cambridge-circus, Minerva-street, Centre-street, and Felix-street, Bethnal Green, so far as relates to the erection of a brick building to be used as a coal store and workshop and the erection of temporary perambulator sheds and bicycle sheds (Mr. W. E. Wallis for the Governors of the Peabody Donation Fund).—Consent.

Rotherhithe.—That the application of Mr. J. J. Freeland for an extension of the periods within which the erection of buildings on the south-eastern side of Albion-street, Rotherhithe, at less than the prescribed distance from the centre of the roadway of Swan-lane, was required to be commenced and completed, be granted.—Consent.

Stepney.—A block of working-class dwellings on the western side of Jubilee-street, Stepney, at less than the prescribed distance from the centre of the roadway of Adelina-grove (Mr. W. E. Trent for Mr. M. Calnan).—Consent.

Width of Way and Projections.

Limehouse.—The re-erection of an iron and concrete balcony in front of Queen's Wharf and McGowan's Wharf, Wapping-wall, Limehouse (Messrs. Weber, Smith, & Co.).—Consent.

Width of Way and Space at Rear.

Strand.—A building on the western side of Charing-cross, Strand, southward of No. 49, Charing-cross, at less than the prescribed distance from the centre of the roadway of Spring-gardens (Messrs. Hayward & Maynard for Mr. G. J. Drummond).—Consent.

Lines of Frontage and Construction.

Marylebone, East.—The retention of a book-stall of a temporary character in front of No. 64, Queen's-road, St. John's Wood (Mr. E. J. Harvey).—Consent.

Norwood.—A deviation from the plans approved for the erection of a temporary iron building on the western side of Tulse-hill, Norwood, so far as relates to the erection of additions thereto (Mr. H. E. Richards).—Consent.

Wandsworth.—An iron motor garage on the north-eastern side of Tooting Bec-road, Wandsworth (Messrs. Jones Brothers for Mr. A. Sullivan).—Refused.

Width of Way, Frontage, and Construction.

Holborn.—An iron and glass gangway at No. 14, Cross-street and No. 21, Hatton-yard, Holborn, over the public way of Hatton-yard (Mr. C. Burton for Messrs. Baird & Tatlock).—Consent.

St. Pancras, East.—The retention of three wood and iron sheds at No. 75a, Camden-road, St. Pancras, abutting upon the southern side of Rochester-place (Adam Hilger, Ltd.).—Refused.

Woolwich.—Retention of a wood and iron shed of a temporary character at the rear of Godfrey House, Godfrey-hill, Woolwich, abutting upon the western side of Lower Wood-street (Mr. A. W. Martin).—Consent.

Width of Way and Deviation from Certified Plans.

St. Pancras, South.—A deviation from the plans approved for the erection of buildings on a site abutting upon Tottenham Court-road, Fitzroy-court, Whitfield-place, and Warren-street, St. Pancras, so far as relates to alterations in connexion with the adaptation of a portion of the premises for use as an hotel, and the uniting of such hotel portion with a building in Whitfield-place (Messrs. Seth-Smith & Munro).—Consent.

Projection and Conversion of Building.

Lambeth, North.—The conversion of Nos. 115 and 117, Stamford-street, Lambeth, into one building and the erection of balconies in front (Mr. C. Barker for the Duchy of Cornwall).—Consent.

Space at Rear and Alteration of Buildings.

Kensington, South.—An addition at the rear of No. 27, Kensington-court, Kensington, at the first floor level (Mr. W. Flockhart for the Hon. Gerald Montague).—Consent.

Lewisham.—A modification of the provisions of sect. 41 with regard to open spaces about buildings, so far as relates to the proposed erection of additions at the rear of the Three Brewers public-house on the southern side of Willow-walk, Lewisham (Mr. A. R. Westworth for Mr. A. Parsey).—Consent.

Lewisham.—A modification of the provisions of sect. 41, with regard to open spaces about buildings, so far as relates to the proposed erection of five houses on the north-eastern side of Court Hill-road, Lewisham, with irregular open spaces at the rear (Mr. A. Roberts for Messrs. J. Shorter & Co.).—Consent.

Buildings for the Supply of Electricity.

Chelsea.—A storage battery house at the electricity generating-station on the southern side of Lots-road, Chelsea (Mr. J. R. Chapman for the Underground Electric Railways Company of London, Ltd.).—Consent.

Holborn.—Deviation from the plan approved for the retention of a stack of four exhaust pipes inside an air shaft at the Short's-gardens and Drury-lane sub-station of the Charing-cross, West-end, and City Electricity Supply Company, Ltd., Holborn, so far as relates to an alteration in the construction and height of the stack of exhaust pipes (for the Charing-cross, West-end, and City Electricity Supply Company, Ltd.).—Consent.

Cubical Extent.

City of London.—A deviation from the plans approved in respect of additional cubical extent at a building on the site of Nos. 27 and 29, Hosier-lane, Smithfield, so far as relates to the erection of a steel and iron building on the roof (Messrs. Yetts, Sturdy, & Usher for Messrs. Lovell & Christmas, Ltd.).—Consent.

Finsbury, East.—The use of doors of a special construction in lieu of iron doors on one side of each of the openings in the division walls next to the staircase landings in a factory building on the southern side of City-road, Finsbury, and abutting also upon the western and northern sides of Dingley-road (Mr. R. W. Hobden).—Consent.

St. Pancras, East.—(i.) The raising of the central one-story portion of the F.I.A.T. Motor Cab Company's King's Cross depôt, Pancras-road, Weller's-court, and Cheney-street, St. Pancras; (ii.) the formation in division walls of openings; (iii.) the method of constructing the division walls (Messrs. Burton and de Bertodano).—Consent.

Projections and Construction.

Kensington, South.†—Three showcases at No. 4, High-street, Kensington (Messrs. Parnell & Sons, Ltd., for Messrs. F. J. Bateman & Co., Ltd.).—Consent.

Uniting of Buildings.

City of London.—The uniting of Nos. 77 and 78, Milton-street, City, by an opening at the third floor level (Mr. H. Knight for Sir Henry E. Knight).—Consent.

City of London.—The uniting of Nos. 22a and 23, College-hill, Cannon-street, City, by means of an opening at the first floor level (Mr. C. Watkins for Mr. G. J. F. Knowles).—Consent.

Deptford.—Formation of openings between Nos. 9 and 11 and 11 and 13, Deptford-bridge, Deptford (Messrs. Bell, Brodrick, & Gray for Messrs. J. & H. Robinson, Ltd.).—Consent.

Kensington, South.—The uniting of Nos. 2 and 4, High-street, Kensington, by openings at the basement and ground floor levels (Messrs. Parnell & Sons, Ltd., for Messrs. F. J. Bateman & Co., Ltd.).—Consent.

Paddington.—An armoured door and an iron door in lieu of two iron doors to openings in a division wall between No. 223 and Nos. 225 and 227, Harrow-road, Paddington (Mr. F. Mark).—Consent.

Strand.—Uniting of Nos. 3 and 5, Burleigh-street, Strand, by openings at the first and fourth floor levels (Mr. W. J. Ancell).—Consent.

Width of Way and Line of Frontage.

Hackney, Central.—A water-closet building and the retention of a boundary fence at the rear of No. 7, Clapton-square, Hackney, to abut upon Clarence-mews (Mr. F. Hamlett).—Refused.

Space at Rear.

St. George, Hanover-square.—A modification of the provisions of sect. 41, with regard to open spaces about buildings, so far as relates to the proposed erection of seven houses on the site of Nos. 44-56 (even numbers only), inclusive, Park-street, and Nos. 37 and 38, Upper Grosvenor-street, St. George, Hanover-square, with irregular open spaces at the rear (Messrs. Blow & Billery).—Consent.

Strand.—A modification of the provisions of sect. 41, with regard to open spaces about buildings, so far as relates to the proposed erection of a building on the site of No. 15, Rupert-street and No. 3 and 4, Rupert-court, Soho, with irregular open spaces at the rear (Mr. W. I. Chambers).—Consent.

Deviation from Certified Plans.

City of London.—A deviation from the plans approved for the rebuilding of No. 38, Hutton-street, City, and the erection of an addition at the rear, so far as relates to the raising of the building next to Hutton-street (Mr. H. A. Satchell for Edward Lloyd, Ltd.).—Consent.

Alteration of Buildings.

Chelsea.—An additional story at No. 17, Draycott-avenue, Chelsea (Messrs. Bourchier, Burmester, & Galsworthy).—Refused.

Paddington, South.—An additional story over the rear portion of No. 21, Cambridge-square, Hyde Park (Messrs. Swan & Norman for Mr. F. R. S. Balfour).—Consent.

Westminster.—The retention of certain walls of a building on the northern side of Great Peter-street, Westminster, abutting also upon the western side of St. Ann's-street (Mr. O. Archer for the Salvation Army).—Consent.

Formation of Streets.

Islington, East.—That an order be issued to Mr. J. Patten Barber sanctioning the adaptation of a way between Framfield-road and Whistler-street, Islington, as a street for foot traffic (for the Islington Metropolitan Borough Council).—Consent.

Lewisham.—Extension of the period within which the roadways of proposed streets for carriage traffic on the Winn estate on the

eastern side of Burnt Ash-hill, Lee, were required to be defined and thrown open (Messrs. Lemon & Blizard).—Consent.

Lewisham.—That an order be issued to Messrs. Hennell & Son refusing to sanction the formation or laying out of a street for carriage traffic in connexion with the erection of buildings on a site on the western side of Sydenham Park-road, Lewisham.—Refused.

The recommendations marked † are contrary to the views of the metropolitan borough councils concerned.

Architectural Societies.

EDINBURGH ARCHITECTURAL ASSOCIATION.

A meeting of the Associate Section of this Association took place on Wednesday evening last week in the rooms, 117, George-street, Edinburgh, Mr. Wm. Davidson in the chair. A paper on "Decoration" was read by Mr. W. E. F. Britten, Professor of Decoration in the Glasgow School of Art. The lecturer urged the fuller development of colour in architectural decoration by the use of mosaics for exteriors of buildings. He deplored the neglect of a material in every way suitable to resist the climate and dirt, and one that would give life and joy to the effect of our thoroughfares and streets. In Roman days, he pointed out, mosaics were commonly used in this island. It was not true, he said, that picture painting was the only expression of art cared for by the public. If they gave the people beauty in architecture it would gradually attract them, and especially as regards colour. Lack of artistic training and broad-mindedness on the part of officials and committees serving on occasions when matters of artistic moment were being discussed had most to do with the shortcomings of architectural decorative development. On the motion of Mr. George White, a vote of thanks to the lecturer was accorded.

LEEDS AND YORKSHIRE ARCHITECTURAL SOCIETY.

On Thursday, the 10th inst., after a general meeting, the students of the Society held their annual conversazione. The prize essay of the year by Mr. Fred Scatchard on "The Use and Value of Colour in Architecture" was read and discussed. Mr. Scatchard in his essay cited many of the best-known examples of coloured architecture of past ages as arguments in themselves as to the value of colour, and dwelt upon the varied agencies by which colour was introduced into buildings, whether by the use of naturally coloured materials or by the application of artificial colour in pigment, mosaic, or glass. Speaking of modern conditions he instanced the use of terra-cotta in its many forms as that of an impervious, washable material capable as far as possible of resisting the ravages of the smoke demon and so far adapted to use in manufacturing cities, a point round which the subsequent discussion revolved, opinion leaning towards the adoption of terra-cotta in preference to the perpetual gloom to which the stone building would appear to be condemned in a place "enjoying" similar atmospheric conditions to those at Leeds. The Sketching Club's programme for the coming season received consideration, and numerous suggestions were made towards formulating a series of visits. A selection of works by the students was exhibited, comprising studies of ancient buildings, suggestions for imaginary buildings, and numerous sketches of architectural subjects at home and abroad.

A general meeting, the last of the present session, was held on Thursday, the 17th inst., when Mr. S. D. Kitson read his paper on "Carr of York."

MANCHESTER SOCIETY OF ARCHITECTS.

On the 9th inst. Mr. P. S. Worthington presided at a meeting of the Manchester Society of Architects, at which drawings by a number of students were criticised. The drawings were those which had been submitted in the Society's competitions, and it was announced during the evening that the prize for the class in which the subject was a town house had been gained by Mr. J. H. Worthington, the prize for drawings of a school library by Mr. J. S. Beaumont, and the prizes for measured drawings by Mr. J. H. Worthington, Mr. E. B. Norris, and Mr. L. M. Angus. The criticisms were made by Mr. Roger Oldham, Mr. Claude Paterson, Mr. Gerald Sanville, and Mr. J. S. Halliday.

Competition News.

NATIONAL MEMORIAL MONUMENT, HALIFAX, NOVA SCOTIA.

It is proposed to erect a tower commemorative of the Federation of the various Provinces whereby the Dominion of Canada came into existence, in 1867; the tower is to be erected on the North-West Arm at Halifax, Nova Scotia. The competition is open to Canadian architects and draughtsmen who are British subjects, and will be conducted by the Royal Architectural Institute of Canada. The official Provincial Association in each Province will invite its members to submit competitive designs for the tower, and each Provincial Association will then select the three best designs from those submitted and forward them to the Royal Architectural Institute, which body will make a final selection from the plans so submitted. Medals will be awarded by the Royal Architectural Institute:—To the author of the design placed first, a gold medal; author of the design placed second, a silver medal; author of the design placed third, a bronze medal. The author of the design placed first by the Royal Architectural Institute as the winner of the whole competition will be asked to prepare working drawings and specifications with sufficient details to carry out the work.

THE USHER HALL, EDINBURGH.

The Lord Provost's Committee of the Edinburgh Town Council had under consideration at their meeting on Wednesday last week the expediency of proceeding with the erection of the hall on the site belonging to the Corporation between Castle-terrace and Lothian-road. On the motion of the Lord Provost, seconded by Lord Dean of Guild Carter, the Committee adopted resolutions unanimously that ensure the carrying out of the scheme, subject to the approval of the Council. The resolutions ask that the erection of the hall be proceeded with forthwith, giving seating accommodation for 3,500 persons, including orchestra, and that the Committee proceed to negotiate for the acquisition of the Lothian-road School and the remaining tenement property, applying for the necessary powers under a Provisional Order. It was resolved that the sum to be expended on the acquisition of the site (exclusive of the existing Synod Hall) should not exceed 40,000*l.*, and that the cost of erection should not exceed 70,000*l.*; further, that the plans be obtained by open competition, Sir Aston Webb, R.A., London, to be assessor and adjudicator, Mr. James A. Williamson, the City Superintendent, being associated with him.

SCHOOLS AT KIMBERWORTH.

The report of Mr. E. R. Robson, the assessor appointed in connexion with the competitive designs for the erection of a higher standard school and an infants' school at Kimberworth, has been made public. Mr. J. E. Knight has received first premium (50*l.*), and Messrs. Willey & Jenkinson the second premium (20*l.*). Mr. Knight has been appointed architect for the schools, and the Town Clerk has been instructed to prepare the necessary agreement. The Building Sub-Committee are to take into consideration the question of incorporating in the final plans certain suggestions in the report of the assessor.

ACTON SCHOOL—WALSALL (BLOXWICH) SCHOOL.

The Secretary of the Royal Institute of British Architects asks us to announce that the Competitions Committee are considering the conditions of both these competitions, with a view to their amendment.

NEW KYLES OF BUTE HYDROPATHIC.—Plans have been accepted for the new Kyles of Bute Hydropathic, which is to take the place of that recently burned down. The new buildings, which are to be 500 ft. long by 150 ft. wide, will occupy practically the same site as the old, and will command a view of the Firth. The architect is Mr. Andrew Balfour, of Glasgow.

BOOKS RECEIVED.

THE EMPLOYERS' LIABILITY ACT (1880) AND THE WORKMEN'S COMPENSATION ACT (1906). By Judge Ruegg, K.C. Eighth Edition. Pp. 980. (Butterworth & Co.)

LONDON TOPOGRAPHICAL RECORD: Illustrated. Vol. VI. (Office of the London Topographical Society.)

LOMBARDIC ARCHITECTURE: ITS ORIGIN, DEVELOPMENT, AND DERIVATIVES. By G. T. Rivoira. Translated by G. M. Rushworth, M.A. Two vols. Pp. 597. (W. Heinemann. 3*l.* 3*s.*)

THE ARCHITECT'S GUIDE TO THE LONDON COUNTY COUNCIL (GENERAL POWERS) ACT, 1909. Pp. 23. (British Manufactures, Ltd. 1*s.* 6*d.*)

REINFORCED CONCRETE CONSTRUCTION. By W. Noble Twelvetrees, M.I.Mech.E. Pp. 48. (*The Local Government Officer.* 1*s.*)

THE ANTIQUARY; A MAGAZINE DEVOTED TO THE STUDY OF THE PAST. Vol. XLV.: January—December, 1909. (Elliot Stock. 7*s.* 6*d.*)

Master Builders' Associations, etc.

SOUTH-WESTERN FEDERATION OF BUILDING TRADES' EMPLOYERS.

A meeting of the South-Western Federation of Building Trades' Employers was held at Northgate-mansions, Gloucester, recently, Mr. F. A. R. Woodward, of Bristol, the President, presiding.

The Secretary gave a short address on organisation, pointing out to them how by joining the local Association at Gloucester they became a part of the South-Western Federation, which was itself a part of the National Federation; that there were many matters upon which builders needed protection and better terms, especially in regard to the forms of contract which were sometimes placed in front of them for signature, under which very often the architect was appointed sole arbitrator; and that as an Association they were enabled to meet and discuss with the workmen any demands or terms by them made, and that if any unreasonable demands were made by them they could be considered and adjusted by a Conciliation Board, with an ultimate appeal to the National Conciliation Board, thereby saving the bitterness and loss arising from a strike or lock-out. He also pointed out that Gloucester was one of the towns which were included in the area covered by the South-Western Federation, which extended from Hereford to Exeter, and included in this organisation the leading builders and contractors in the various town of Hereford, Somerset, Gloucester, and Devon.

A discussion took place amongst the members as to the best way of increasing the membership of the local Association and inducing builders, decorators, plumbers, and contractors outside the organisation to come in and form one strong Association, as had been done in other Associations in the Federation.

Mr. W. T. Nicholls, the President of the Gloucester Association, spoke as to some of the difficulties which they had experienced in inducing members to join.

Mr. Ambrose, of Bath, pointed out to the meeting how through the efforts of the Federation and local associations the attitude of architects towards the builders in his district during the last few years had considerably changed, and the builders were now treated with the respect and fairness to which they were entitled, and this had only been brought about by the united efforts of the Association. He also gave an illustration how strikes in Bath and Bristol had been avoided by the men appreciating that they were not dealing with a single firm, but an association of firms, and might ultimately have to deal with the National Federation if their demands were unreasonable and unfair. The builders appreciated the benefits which they had derived, and were loyally supporting the Associations and the Federation. In Gloucester they should endeavour to get into the Association all firms carrying on decorating, plumbing, and contracting work, as had been done in other towns, and have one strong Association instead of two or three organisations.

Mr. Neale, of Bristol, pointed out how their Association had been able to obtain the assistance of many honorary members, such as builders' merchants, who felt that their interests were somewhat identical with the builders in obtaining a security and continuity of trade, and they had helped the builders by becoming members and subscribing towards its objects. In Bristol they had issued telephone cards to the members upon which were printed in prominent letters the names of the merchants who were members of the local Association.

LONDON AND DISTRICT BOROUGH COUNCILS.

Barnes.—Conveniences are to be erected (1) at Rock's-lane, at an estimated cost of 1,150*l.*; and (2) at Mortlake-green, at an estimated cost of 400*l.* Plans have been lodged as follow:—Mr. H. Pacey, twenty-eight houses, Grange and Melville roads; Messrs. Tyars & Jago, four houses, Coral-road; Mr. E. J. Partridge, two shops and nine houses, White Hart-lane, Rosslyn-avenue, and Tudor-gardens; Mr. A. Stanley, laying out estate, Milton-road; Messrs. Smith & Son, thirty-four houses, Holmesdale-avenue, and seven shops and thirty houses, Temple Sheen-road and Upper Richmond-road.

Camberwell.—Mr. G. J. Anderson, Poplar, is to carry out new street works at Desenfans-road, Dulwich, the contract price being 457*l.* 10s. 3d. Tenders are to be invited for the permanent paving of Peckham Rye, West Side, the contractors to state the paving they are prepared to lay down, and conditions as to maintenance thereof for a term of years. A plan has been passed for Mr. A. J. Carpenter for a shop on the site of Nos. 7 and 7a, Camberwell-green.

Friern Barnet.—The Surveyor has been instructed to prepare plans for paving the footpaths in Oakleigh-road South. Plans have been passed as follows:—Mr. A. Arnott, four houses, Holly Park-road; additions to "Arkwyke," Oakleigh-park South, Mrs. Willis.

Hendon.—The following plans have been passed by the Urban Council:—Mr. A. Bretzfelder, conversion of three shops into electric theatre, Cricklewood-broadway; Mr. Robinson, twenty-four houses, Annesley-avenue; Messrs. Matthews & Bennett, fourteen houses, Beverley-gardens, Woodstock Estate; Mr. T. Waple, three houses, Flower-lane; Mr. Hammond, hall and living-room, Soldiers' Welcome, Mill Hill; Mr. A. J. Reynolds, three houses, Temple Fortune-lane; Mr. S. Johnson, four houses, Albert-road; Mr. H. T. Rider, eight houses, Egerton-road.

Hornsey.—Mr. T. Adams, Wood Green, is to make up Leinster-road, the contract price being 940*l.* Plans have been passed for Mr. F. Goodrich, for the adaptation of Assembly Rooms, Middle-lane, Crouch End, for a cinematograph hall. Messrs. Francis Chambers & Sons, of Cannon-street, have lodged plans for building line, etc., on the Norman House Estate, Middle-lane.

Ilford.—The following plans have been passed:—Messrs. Smee & Houchin, church and school, Kildowan-road; Mr. E. Dunn, for Mr. A. C. Corbett, four houses, Ashgrove-road; Mr. Prosser, six houses, Middle-road; Messrs. J. E. K. and J. P. Cutts, completion of St. Alban's Church. The following plans have been lodged:—Messrs. Emden, Egan, & Co., electric theatre, High-road; Mr. W. Hancock, bioscope theatre, 98 and 100, High-road.

Lewisham.—Tenders are to be invited for the paving and forming of Ravensbourne-park, and also Ewhurst-road. Plans have been passed as follows:—Mr. A. E. Habersohn, Baptist chapel, corner of Baring-road and Butterfield-street; Mr. James Watt, six houses, Eliot-hill, Blackheath, twelve houses, Bellingham-road, six houses, Arran-road, also additions to Catford skating rink and picture palace, Sangley-road; Messrs. Norfolk & Prior, six houses, Brownhill-road; Messrs. Edmondsons, Ltd., eleven houses, Dukesthorpe-road; Messrs. J. W. Heath & Sons, thirty-nine houses, Francenary-street and Chudleigh-road.

St. Pancras.—Plans have been passed for Messrs. Whitbread & Co., Ltd., for alterations and additions to the Kentish Arms public-house, Flaxman-terrace and Mabledon-place.

Southwark.—The Council have passed a plan for the City of London Electric Lighting Company, Ltd., 64, Bankside, S.E., for the erection of a building (strainer-house), on the south side of Bankside.

Sunbury.—Plans have been passed for Messrs. Wheatley & Sons, East Moseley, for a new stand at Kempton Park.

Tottenham.—Plans have been passed as follows:—Messrs. Edwin, Evans, & Sons, 253, Lavender-hill, S.W.; four houses, Fairview-road; Mr. A. C. Green, 1, Somerset-road, Tottenham, five houses, Bailey's-lane; Messrs. G. Bell & Sons, Ltd., offices, Bruce Grove-road. The following plans have been lodged:—Messrs. Bilsborough & Dawes, picture palace, Green-lanes and St. Ann's-road corner; Mr. Thomas Rowley, roads and sewers on an estate abutting on St. Ann's-road; Mr. H. S. Couchman, factory, Factory-road, Boundary-road.

West Ham.—Alterations and additions, estimated at 1,200*l.*, are to be carried out by the Education Committee of the Council at the Fyfield Industrial and Truant School.

Westminster.—Land has been acquired in Church-place, Piccadilly, for street widening. The total cost, including paving works, is put at 1,582*l.* An estimate of 1,613*l.* has been passed for paving Spring-gardens with wood to the north side of Messrs. Drummond's Bank, and lowering the paving so as to suit the altered levels due to the new Mall roadway. The Building Committee has considered an application by the Wolseley Tool and Motor Car Company for a licence for the storage of 10,000 gallons of petroleum at Gatliff Wharf, Commercial-road, Pimlico. The company propose to erect a large garage and repairing works at the wharf, and to store the spirit in five tanks. The Committee have decided to inform the County Council that the City Council are the freeholders of the land in question, and that the Committee has no objection to the licence being granted under protective conditions.

METROPOLITAN WATER BOARD.

At the monthly meeting of the Metropolitan Water Board on Friday last week, the following, amongst other matters, were dealt with:—

Future Water Supply of the Metropolis.—A memorandum covering fourteen pages was presented by the Works and Stores Committee dealing with the future water supply of the metropolis. The Engineer, proceeding on the basis of a population of 12 millions requiring to be provided for by 1941, and taking the estimated consumption at 35 gallons per head per day, points out that the total volume of water that may be required in 1941 is about 420 million gallons a day. He has inquired into the scheme for the proposed storage reservoirs in the Kennet and Enborne valleys, and secondly into what is commonly termed the "Progressive scheme," which consists in effect in the construction from time to time of reservoirs, similar to the Staines reservoirs, in the Thames valley. The complete Progressive scheme submitted by the Chief Engineer includes five reservoirs, having a total capacity of about 20,900 million gallons, and sufficient, with the existing works, to ensure during a drought, as severe as that which occurred in 1898-9 and 1901-2, a supply of 35 gallons a head per day for a population of 12,000,000. The new works would necessitate an intake on the Thames some miles above Staines, and the construction of an aqueduct one mile and a quarter long. At the termination of this aqueduct an auxiliary intake would be constructed on the River Colne, and a pumping-station erected so that water could be pumped into the various reservoirs as constructed from time to time. The first instalment of the works would provide and distribute sufficient water until 1924. Only sufficient filter-beds would be constructed in the first instance to deal with about 36½ million gallons per day, while pumping-engines would be erected to deal also with a like quantity of water. The second instalment, which should be ready by 1924, would suffice till 1931; the third instalment would be finished by 1931, and provide adequate water till 1934; and the fourth and final instalment would provide water till 1941. The estimated cost of the Enborne scheme is 8,396,820*l.*, and that of the Progressive scheme 6,273,710*l.* The Committee favour the latter scheme.

The Finance Committee included several sums in the estimates in connexion with the preliminary investigations, but stated that they would report fully on the financial bearings of the proposals at a later date.

Engineering Standards Committee.—It was agreed to accede to the application of Sir J. Wolfe Barry and subscribe to the funds of the Engineering Standards Committee. The Chief Engineer stated that the work of the Committee had been of the utmost service to the Board in connexion with the standardisation of all kinds of structural steel and iron work, and the production of standard specifications for the manufacture of cement, pipes, etc.

PROJECTED NEW BUILDINGS IN THE PROVINCES.

ABERLLEFENNI.—School-house and alterations to master's residence (822*l.*); Mr. J. Wm. Owen, builder, Dolgelly.

Accrington.—Warehouse, Barners-street, for Messrs. Clarke.

Aldbury.—Ward block at hospital; Surveyor, care of Hospital Joint Committee, Aldbury.

Amesbury.—Police-station; County Surveyor, Trowbridge.

Attleborough.—Infirmary; the Guardians.

Ayr.—House, Denure-road (5,000*l.*); Mr. J. K. Hunter, architect, Ayr. Grain stores, York-street (1,700*l.*); Messrs. McGill & Smith, grain merchants.

Balby.—Additions to church (2,000*l.*); Messrs. Mullins & Richardson, builders, Balby.

Barry.—Underground convenience; Mr. J. C. Pardoe, Borough Engineer.

Bedworth.—School; Mr. J. Willmot, architect, 12, Waterloo-street, Birmingham.

Bideford.—Rebuilding St. Mary's Church; the Vicar.

Birkby (Huddersfield).—School; Mr. H. F. Campbell, Borough Surveyor, Huddersfield.

Birkenhead.—Additions, church (1,500*l.*); Mr. A. E. Shannon, architect, North John-street, Liverpool.

Bognor.—Rink, York-road; Mr. W. Tate, architect, Bognor.

Brackley.—School; Education Secretary, Shire Hall, Northampton.

Braichycymmfer (Glam.).—Additions, school (540*l.*); Messrs. F. W. Lougher & Co., builders.

Brighton.—Church, Preston; Vicar, Preston Parish Church.

Brimscombe. — Rebuilding Polytechnic; Stroud (Glos.) Urban District Council.

Burton. — Extensions, Burton Latimer School; Northampton County Council.

Cadle (Glam.).—Additions, school (2,050*l.*); Mr. J. M. Broadfoot, builder.

Carlisle.—Theatre; Mr. Sidney Bacon, architect, Carlisle.

Chelmsford.—School (13,000*l.*); Messrs. H. Potter & Son, builders, Chelmsford.

Cleckheaton.—Institute (2,000*l.*); Messrs. Sharp & Waller, Brighouse.

Cleethorpes. — Public hall; Borough Surveyor.

Cobholm.—Church and school; Trustees, Primitive Methodist Church.

Codeshill.—Infirmary (6,000*l.*); the Guardians, Wayland.

Cradley (Worcestershire).—United Methodist church; Messrs. Hickton & Farmer, architects, Bridge-street, Walsall.

Cwymaber.—Extension, school (200 places); Architect, Education Committee, Glamorgan County Council.

Darlington.—Twenty houses, Major-street; Messrs. J. J. Taylor & Minor, builders.

Daventz. — School; Education Secretary, County Hall, Northampton.

Dunfermline, N.B.—Block of dwellings, Hospital-hill; Mr. A. C. Bain, architect, Lochgelly.

East Wickham.—Mission hall and church; Vicar, St. Michael's, East Wickham.

Edinburgh.—School (20,000*l.*); Mr. A. D. Robinson, architect, School Board Offices, Edinburgh.

Etherley.—Additions, school (1,500*l.*); Mr. F. E. Coates, architect, Shire Hall, Durham.

Exmouth.—Additions, hospital (2,000*l.*); Mr. E. E. Ellis, architect, Imperial-road, Exmouth.

Gahalfa (Glam.).—School (168 places); Architect, Education Committee, Glamorgan County Council.

Greenford.—The District Council has passed a plan for a pavilion on the London University College Athletic Ground.

Greenock. — Additions, Gowanhill House (3,000*l.*); Messrs. Stewart, Tough, & Alexander, Greenock.

Grimsby.—Extension of police-cells at Town Hall, and other works (3,000*l.*); also branch lock-up, Oxford-street (2,800*l.*); Mr. H. G. Whyatt, Surveyor, Grimsby Town Council. Extension of lending library (840*l.*); Mr. H. G. Whyatt, Surveyor, Grimsby Town Council. The Town Council has passed a plan lodged by Mr. Geo. Cook for houses on the Cow Close Estate.

Halifax.—Arcade and shops (4,000*l.*); Mr. C. Williams, architect, Halifax. Additions, club-house; Secretary, Halifax Golf Club.

Hedworth.—Additions, parish church; Mr. W. Morton, architect.

Horsley Woodhouse.—School; Mr. G. Widdows, architect, Derby.

Kennethmont.—Additions, church; Mr. B. Mitchell, architect, Aberdeen.

Kettering.—School; Education Secretary, County Hall, Northampton.

Llangower.—Proposed school (fifty places); Architect, care of Secretary, Merioneth County Council.

Longton.—Eight houses; Messrs. Tomkinson & Betteley, builders, Longton.

Lowestoft. — Additions, French convent, Boston-road; Mr. F. W. Richards, architect, Lowestoft. Proposed shelters, South Pier (125*l.*); and model yacht pond (75*l.*); Surveyor, Lowestoft Town Council.

Marsden.—Fifteen houses and shops; Mr. J. E. Crowther, builder.

Melcombe (Regis).—School; Messrs. Crickmay & Sons, Weymouth.

Newbridge (Mon.).—Congregational church (2,500*l.*); Mr. J. N. Alldiss, architect, Newbridge, Mon.

Plymouth.—The Town Council has passed the following plans:—Store building, Victoria Wharves, for the Victoria Wharves and Pier Company; four houses, Hyfield-terrace, Old Laira-road, for Mr. T. C. Hender; electric theatre, Ebrington-street, for Mr. A. E. Bryant; electric theatre, Union-street, for Mr. J. Lyons.

Porthcawl.—Post-office; Mr. J. H. Phillips, architect, 7, Pembroke-terrace, Cardiff.

Portsmouth.—Two blocks, hospital; Mr. G. E. Smith, 145, Victoria-road, Southsea.

Port Talbot (Glam.).—School (320 places); Architect, Education Committee, Glamorgan County Council.

Radcliffe (Notts). — Extensions, County Lunatic Asylum; Mr. E. P. Hooley, Shire Hall, Nottingham.

Resolvent (Neath Valley).—Public library; Mr. J. Cook Rees, architect, The Parade, Neath, Glam.

Restalrig (Edinburgh).—Extension, Munro's factory (2,250*l.*); Messrs. R. & E. E. Pearson, architects, 19, Queen-street, Edinburgh.

Rotherham.—Small-pox hospital, Kimberworth (5,000*l.*); Borough Engineer, Rotherham Town Council. Proposed higher standard school and infants' schools, Kimberworth; Mr. J. E. Knight, architect, 33, College-street, Rotherham. The Town Council has passed the following plans:—Eleven houses, Denman-street, for Messrs. Chas Green's Sons; villa residence, Broom-lane, for Mr. C. H. Green; houses, Ewers-road, for Mr. A. Fellows. The following plans have been lodged:—Rebuilding of Volunteer Inn, Bridgegate, for the executors of Mr. R. J. Bentley; proposed bottling stores, Howard-street, for Messrs. Garnett Brothers.

Sheringham.—Offices for Urban District Council; Council Surveyor, Sheringham.

Shrewsbury.—Abattoirs for Town Council (4,000*l.*); Mr. A. E. Williams, architect, High-street, Shrewsbury.

Sidmouth.—Council chamber, offices, etc. (2,000*l.*); Mr. W. Sampson, architect, Station-road, Sidmouth.

Southampton.—Proposed school, Greatham (2,000*l.*); Architect, Southampton County Council Education Committee. Alterations to Holy Rood, Eastern District, Mount Pleasant, and Bitterne Park schools; Education Architect, Southampton Town Council. Proposed building, for steam disinfector (500*l.*); Borough Engineer, Southampton Town Council. The Town Council has passed the following plans:—Seven houses, Testwood-road, for Messrs. Weston & Burnett; almshouses, Ploygon-road, for Messrs. Udall & Co.; eight houses, Romsey-road, six houses, Anglesea-road, and twenty-five houses, Sydney-road, for Mr. W. H. Masters.

Stenalees (Cornwall).—Wesleyan church (1,750*l.*); Mr. J. H. Curry, architect, "Coningsby," Furze-lane, Purley, Surrey.

Sutton (Macclesfield). — School; Messrs. Whittaker & Bradburn, architects, 19, King Edward-street, Macclesfield.

Thatcham. — School; Berkshire County Council.

Torquay. — Laundry, Torbay Hotel; Manager, Torbay Hotel.

Towyn.—Addition, school; Architect, care of Secretary, Merioneth County Council.

Walsall.—The Town Council has passed the following plans:—Casting shop, 38, Queen-street, for Messrs. Satchwell & Co.; shops, School-terrace, for the Oak Leather Goods Company; addition to office, Friars-road, Bloxwich, for the Delaville Spelter Company, Ltd.

Worksop.—Extensions, Priory church; Mr. H. Brakespear, architect.

Yarmouth.—The Town Council has passed the following plans:—Warehouse, Row 90, for Mr. C. Pettitt; pier pavilion, for the Britannia Pier Company, Ltd.; twenty-four houses, Stanley and Belvedere roads, for Mr. S. Read; additions to chapel, Back Chapel-lane, for Congregational Trustees.

Obituary.

SIR THOMAS DREW.

We regret to announce the death, on March 13, in Dublin, of Sir Thomas Drew, LL.D., of Clare-street, Dublin, President of the Royal Hibernian Academy of Painting, Science, and Architecture, and President, 1892-1901, of the Royal Institute of the Architects of Ireland, to the Council of which he, as a past-President, was elected in December, 1908. Sir Thomas Drew, who was knighted at Dublin Castle on May 25, 1900, was the son of the Rev. Thomas Drew, D.D., of Belfast, where he was born in 1838. When sixteen years of age he became a pupil of Sir Charles Lanyon; in 1861 he entered into partnership with Thomas Turner, and in 1863 settled in Dublin. In 1889 he was elected a Fellow of the Royal Institute of British Architects, and served as member of Council several years; in 1869 he joined the Architectural Association. He was consulting architect to St. Patrick's and Christ Church Cathedrals, Dublin, and to Armagh Cathedral. He was Diocesan Architect of Down, Conner, and Dromore, and upon the disestablishment of the Irish Church continued as honorary architect. On July 6, 1905, he received the honorary degree of Doctor of Laws, Dublin University; in January, 1907, he was elected an honorary member of the Royal Scottish Academy. He was President of the Ulster Society of Architects, 1901-3; in 1865 the Royal Institute of the Architects of Ireland presented to him the Fitzgerald Medal, and the Architects of Ireland gave him a loving-cup to signalise his admission to knighthood. He was the author of a paper, "Dublin for Archæologists," read to the meeting in that city of the Archæological Institute, and reported in the *Builder*, July 28, 1900, and of a paper, "The Comacine Masters in Ireland," read in March, 1900, at a meeting of the Architectural Association of Ireland. He was the author of the two articles in our columns upon the two Cathedrals in Dublin, April 7 and May 5, 1894, Nos. I. and II. of our series: "The Ancient Cathedrals of Ireland." His proposed designs for new offices for the Admiralty and War Office were exhibited in the Franco-British Exhibition, 1908; he was one of the five architects nominated to make designs for the national memorial and monument to Queen Victoria, with a processional road, and his proposed remodelling of the front of Buckingham Palace, as part of his design, was illustrated in our number of November 9, 1901. In February of that year was published his report upon the various reparations of St. Patrick's Cathedral as undertaken in 1864 by the late Sir Benjamin Lee-Guinness; in January, 1902, he framed a report upon the cracks which had developed in the bases of the nave piers of Truro Cathedral. His competitive designs, out of ninety-nine sent in, for Liverpool Cathedral received "honourable mention." He was architect for the restoration of Waterford Cathedral; his plan for the building of Belfast Cathedral, after the early Romanesque round-arched style, and begun about ten years ago, is illustrated in our issue of June 4, 1904. Ten months ago he was appointed as architect for the proposed enlargement of Londonderry Cathedral. In March of last year he was nominated as a member of the Royal Commission which was appointed to assist the Board of Trade in the organisation of exhibits of British arts, etc., in the International Exhibitions at Brussels in this current year, and at Rome and Turin in 1911; and he was recently elected to the Chair of Architecture, National University of Ireland. In 1895-7 he was President of the Society of Antiquaries of Ireland. Of Sir Thomas Drew's architectural works we have also illustrated the following:—The Ulster Bank, College Green, Dublin, and the adjoining premises for Messrs. Atkinson & Co.; Hibernian Bank and Rathmines Town Hall (January 7, 1899: "Dublin," in our "Architecture of Our Large Provincial Towns" series); proposed additions to St. Patrick's Cathedral, comprising a chapter-house and a lay-vicars' hall (July 2, 1898, and April 7, 1894); new tower and restoration of St. Patrick's, Coleraine, with lengthening of the nave (March 16, 1889); competition designs for the completion of Holy Trinity, Cork (November 8, 1890); and memorial brass to the late Archbishop Trench in Christ Church Cathedral (January 1, 1889). He was the architect of the Dublin University Union Buildings, consisting of the Graduates' Tercentenary Memorial, with a library, and rooms for the voluntary societies of the University, and having two wings for students' chambers, built of granite with Portland stone dressings, on the old "Rotten Row" site, after the French Renaissance manner, 1900-2; at St. Patrick's Cathedral—the north and south porches, reparation of the nave, the memorial, 1905, to the late Dr. Salmon, Provost of Trinity College, the new organ-chamber on the north side at the triforium level, with the spiral staircase thereto in the north transept; St. Columba's Church, Ballynascreen, in Derry diocese, 1888-9; the tower of Magheralin parish church, Lurgan, 1898; the triumphal gateway erected on the occasion of Queen Victoria's last visit to Dublin; country houses for Colonel Clements in Lochree, for Colonel Biddulph, and others in Ireland and in England; memorial in St. Patrick's Cathedral, 1907, to the officers and men of the 18th Royal Irish Regiment who fell in the South African campaign—a Celtic mural cross, 9 ft. high, of white marble; new parish church, Castle Archdale, Fermanagh (1907-8); memorial arch, of Ballynocken white granite, and gates, Dublin, in memory of the Royal Dublin Fusiliers, South Africa, 1899-1902—the design being prepared jointly with Mr. Howard Pentland, Architect to the Board of Works, Ireland; Celtic cross erected at Clonakilty, Co. Cork, in memory of the late Lord Carbery, 1901; extension of Trinity College Library, Dublin; and a brass (the Blacker Memorial offering), Seagoe parish church, Portadown. Sir Thomas Drew acted as assessor in many important competitions, including those for the three Carnegie branch libraries, 1905; the Presbyterian Assembly Buildings, 1900; the Town Hall; and the Mater Infirmorum Hospital, 1894—all in Belfast; Church of St. Mary of the Rosary, Nenagh; and Enniskillen Town Hall, 1900.

MR. SHEWBROOKS.

The death is announced of Mr. Edward Shewbrooks, a well-known architect practising in the north of England during nearly forty years past, and latterly as the senior partner of the firm of Messrs. Shewbrooks & Hodges, of Grainger-street, Newcastle-on-Tyne. Mr. Shewbrooks was elected a Fellow of the Royal Institute of British Architects in 1881. He prepared the plans and designs of the Home for Incurables, the Guildhall-chambers, and the business premises, No. 24, Newgate-street, all of which are in Newcastle and are illustrated in the *Builder* of October 8, 1898: "Architecture of Our Large Provincial Towns" series. The firm were the architects of the abattoirs, factories, and other premises for the Newcastle Co-operative Society (1901), and of several houses, factories, business premises, etc., in Newcastle, Wallsend, Benwell, and the neighbourhood. They were awarded the second premium for their designs in the competition, 1906, for the Wallsend municipal buildings, and the third premium in the competition, in the same year, for the Reddish baths, fire-station, and library buildings.

General Building News.

CATHOLIC CHURCH, TROON.

A new Catholic church is to be erected in St. Meddan's-street, Troon. A presbytery and sacristies are also to be built on the site. The buildings are to cost about 10,000*l.*, and the church will seat 500 worshippers. The architect is Mr. Reginald Fairlie, Edinburgh.

CHURCH, WELWYN.

It has been decided to carry out restoration works at Welwyn Parish Church, under the supervision of Mr. Charles Bloomfield, architect.

CANN ST. RUMBOLD CHURCH.

The church of St. Rumbold, Cann, Shaftesbury, has just been reopened after restoration. Though not structurally enlarged, as was originally intended, the structure has been materially added to by the provision of a new choir vestry, with an organ-loft above it. The church has been cleaned and coloured throughout, and the whole of the work, including heating and lighting, has been carried out under the supervision of Mr. C. E. Ponting, Diocesan Architect, by Messrs. H. J. Kite & Sons, of Salisbury.

ST. MARY'S CHURCH, HITCHIN.

A meeting was recently held of the Committee who have in hand the restoration of this church. Mr. Millard was in attendance, and reported that Mr. Newton's tender for the restoration of the north chancel aisle roof, based upon his previous competitive prices, was 898*l.* 4*s.* 7*d.*, and for the clearstory wall and parapet 205*l.* In answer to an inquiry, Mr. Millard stated that Mr. Warren was prepared to accept the subcontract for the necessary stonework. It was agreed to accept Mr. Newton's tender of 898*l.* 4*s.* 7*d.* for the restoration of the north chancel aisle roof, and to defer the question of the restoration of the clearstory wall and parapet.

TOWN HALL EXTENSIONS, STOKE-ON-TRENT.

The foundation-stones of the scheme for the extension of the Town Hall buildings at Stoke were recently laid. It will be remembered that a competition for the best plans was held, but the award of the assessor was set aside to some extent by the Town Council because two of the three sets of plans placed first by the assessor considerably exceeded the maximum cost fixed by the Council, viz., 25,000*l.*, exclusive of furnishing, but inclusive of 1,000*l.* for an organ. The design placed second was not disqualified on this ground, and the prize of 100*l.* was awarded to its authors, but it did not meet the wishes of the Council, who eventually selected plans by Messrs. Wallis & Bowden, of Westminster, which were remodelled after consultation with the Council in committee. The design thus produced was adopted, the tender of Messrs. Willcock & Co., Wolverhampton, was accepted at the sum of 25,791*l.*

TOWN HALL IMPROVEMENTS, HANLEY.

As a result of a scheme recently carried out, the Hanley Town Hall has been improved by the erection of a new Council-chamber, with cloakroom and Mayor's retiring-room, a large committee-room, a smaller committee-room, and several storerooms. The contractor for the whole of the work in connexion with the structure is Mr. T. Godwin, of Hanley. The furnishing is in the hands of Messrs. Goodall, of Manchester. The heating has been done by

Messrs. Truswell & Sons, of Newcastle, and the electric lighting by Messrs. Blackburn, Starling, & Co., of Hanley. The work has been designed and superintended by Messrs. R. Scrivener & Sons, and Mr. J. Lobley, the Borough Engineer and Surveyor.

CLUB PREMISES, DUNSTAN-ON-TYNE.

A new building, known as the Dunstan Excelsior Club, has been erected at Dunstan-on-Tyne. It is built of red pressed facing bricks, with stone dressing, and contains on the ground floor a bar, three sitting-rooms, billiard-room, kitchen and scullery; first floor, club-room, reading-room, committee-room, four bathrooms, etc.; second floor, rifle range. The building has been designed and carried out by Messrs. White & Stephenson, architects, Newcastle, the contractor for the work being Mr. T. Clements, of Newcastle.

PICTURE THEATRE, KINGSTON.

A building for the display of animated pictures is to be erected upon a site at the corner of Richmond-road and Cromwell-road, Kingston. The theatre, of which Mr. Walter Phillips, Bishopsgate-street, E.C., is the architect, is designed to hold nearly 400 people, and is the first of seven or eight places of amusement of a similar kind which the Surrey and Sussex Picture Palaces, Ltd., propose to rapidly erect in the two counties named and elsewhere. Mr. S. T. Walker Harrison is Secretary, and the company's offices are at 27, Coombe-lane, Kingston-hill.

PROPOSED EXTENSION OF THE TOWN HALL, ROCHDALE.

Plans are under consideration of a new wing which it is proposed to add to the Rochdale Town Hall. The new block will project 70 ft. outward towards the Corn Mill, will be 54 ft. wide, and 60 ft. high, that is the full three-story height of the existing building. A four-passenger electric lift, traversing all stages from bottom of the building to the top, is to be installed. In connexion with the large assembly-room additional lavatory accommodation will be provided in the existing basement. Lavatories will also be put in on each floor of the new wing. The plans have been drawn by Mr. P. W. Hathaway, one of Mr. Platt's chief assistants, who has been appointed architect for the extensions. The present scheme is only part of a larger extension designed for the future. It is estimated that what is proposed to be done now will cost about 17,100*l.*

TRADE NEWS.

Messrs. Archibald Smith & Stevens send us a description of the automatic electric lift they have supplied for the Hospital for invalid gentlewomen in Lisson-grove, recently opened. For this lift no attendant is required. On each floor served is an ordinary button-push, a momentary pressure of which will call the left if it is not already in use by another passenger. When the lift cage arrives at the landing the door may be unlocked and opened and the cage entered. After entering the cage the landing door must be again closed and locked by the simple movement of a lever; if the door be not locked, the control circuit is interrupted, and the cage cannot be moved. In the cage are placed a number of button-pushes corresponding to the number of floors served. Momentary pressure of any button will send the cage to the corresponding floor, where it stops, and a door may be opened and the passenger can alight. A stop-button is also provided to stop the cage if a wrong button has been pressed. When the lift is in use all the controlling buttons are dead, so that interference with the passenger using the lift is impossible. No door can be unlocked or opened when the cage is not standing opposite that particular door. The action of locking a door simultaneously restores the electric current. The same firm have recently erected eight lifts worked on this principle at the new offices of the *Morning Post* newspaper, Strand.

The extension to the Isolation Hospital, Palmer's Green, is being warmed and ventilated by means of D. O. Boyd's "Hygiastic" ventilating stoves. The new Council school at Meldreth, Cambridge, is also being heated and ventilated by similar stoves, supplied by Messrs. O'Brien, Thomas, & Co.

The new post-office, Worksop, is being ventilated by means of Shorland's patent exhaust roof ventilators and special inlet ventilators, supplied by Messrs. E. H. Shorland & Brother, of Failsworth, Manchester.

The Trustees of the male Lock Hospital have taken an additional site in Dean-street, Soho, and propose building a new block in accordance with designs prepared by Mr. A. Saxon Snell, and have placed the contract with Messrs. W. J. Fryer & Co., Paddington, who at the present time are also building the Radium Hospital.

Appointments.

AMESBURY.

Mr. J. T. Huxham, Surveyor to the Amesbury Rural District Council and Assistant Surveyor of main roads to the Wilts County Council, has taken over the supervision of the main roads in the Pewsey Rural District.

NORTHAMPTON POLYTECHNIC INSTITUTE.

Mr. F. Medforth Denton, of the Carnegie Technical Schools, Pittsburgh, has been appointed Associate-Head of the Electrical, Engineering, and Applied Physics Department, rendered vacant recently by the resignation of Dr. C. V. Drysdale.

Miscellaneous.

GOOD FRIDAY WEEK.

In consequence of the Easter holidays, we go to press next week a day earlier than usual. All communications for the Editor must reach him by *first post on Wednesday morning*, except lists of tenders, which will be received up to 9 a.m. of the same day.

PROFESSIONAL AND BUSINESS ANNOUNCEMENTS.

Mr. M. Maberley Smith, architect, has removed his offices from No. 62 to No. 55, Berners-street, W.——Messrs. Palgrave & Co., architects and surveyors, 28, Victoria-street, S.W., notify that the following gentlemen, who have previously been associated with the firm, viz., Sir Valentine R. Grace, Bart., and Mr. C. Edward Pease, F.S.I., have become partners. The style of the firm and office address will remain as hitherto, with Mr. C. F. W. Fryer as principal partner.——Messrs. R. E. Carpenter & Son, quantity and measuring surveyors (Leicester), have removed their offices from 7, Humberstone-gate to 112, St. Peter's-road, Leicester. Their telephone number, "No. 4,487 Leicester," remains the same.

THE FIRE AT WHITELEY'S.

Thanks to the automatic operation of the sprinkler installation, the fire-resisting character of the construction, and the existence of fire-resisting doors, the fire that broke out on Monday morning at Messrs. Whiteley's establishment was confined to two rooms, and thus a serious conflagration was avoided. Although smoke and fumes caused much inconvenience to the firemen, no flames succeeded in breaking through the defences and the concrete flooring above the rooms attached appears to have behaved in an entirely satisfactory manner. This outbreak should serve the purpose of a most useful corollary to recent demonstrations exhibiting the utter unsuitability of combustible building construction for drapers' shops, and by analogy to all other premises used for the storage of inflammable materials. As several firemen were nearly suffocated by the fumes, it may be hoped that the County Council will take into consideration the adoption of smoke helmets which have been used successfully in other countries.

A PAINTERS' SOAP.

The Jellso Company send a sample of their jelly soap, called "Jellso," which is specially prepared for washing and renovating painted, enamelled, and varnished work. It is also recommended as a medium for cleaning marble, stonework, tiles and mosaic floors; in fact, any hard and polished surfaces.

NEW ROAD FROM THE MALL.

Sir Henry Tanner, on behalf of His Majesty's Office of Works, has submitted to the Improvements Committee of the Westminster City Council a plan showing the levels of the proposed new road from the Mall into Charing Cross. The plan shows the widening of Spring-gardens from 28 ft. to 88 ft., by adding to the public way the vacant site on the north side of the existing narrow street, as well as the adjacent land at present occupied by buildings, Nos. 55 and 56, Charing-cross. The necessary paving, etc., is recommended to be carried out, and that as the improvement is of a metropolitan character the London County Council should be asked to contribute to the cost of the work.

LAW OF SEWERS AND DRAINS.

Mr. Vivian has called the attention of the President of the Local Government Board to the clauses in the Bill of the Surbiton Urban District Council, which proposes to amend the law relating to sewers and drains as it affects that district, and asks whether, instead of agreeing to a piecemeal amendment of admittedly bad law, as proposed in the Bill, he would see his way to introducing a Bill applicable to the whole country.—Mr. Burns states that he is aware of the Bill. He is afraid he cannot at present promise general legislation on the subject of sewers and drains.

ARCHÆOLOGICAL DISCOVERY AT YORK.

A discovery of the face of the Roman wall surrounding the old Roman military camp at York has been made during the last few days, and it has been inspected by members of the York Archæological Society. The section of the wall was discovered during some trenching operations, and a grant was made by the Yorkshire Philosophical Society for the excavation of the rest of the wall, lying in the sculptor's yard near Bootham Bar. It has been found that several yards of the wall had been cleared. The masonry facing of the wall is in an excellent state of preservation, and is formed of the Tadcaster stone in the familiar Roman courses, with concrete core between the faces. The depth of the wall is 4 ft. 4 in., and the top lies 2 ft. below the surface of the yard. It rests upon a projecting basis of concrete. It adjoins an angle formed of large blocks of grit stone, which is believed to have formed one of the sides of the gate on the western wall of the camp, the corresponding side being in Petergate, on the site of the present Bootham Bar. The wall resembles in many of its points the Roman wall in Northumberland. Accurate drawings and specifications are being preserved.—*Yorkshire Observer.*

DISTRICT SURVEYORS' CHARGES.

The Southwark Council has forwarded to the London County Council a resolution expressing the opinion that the time has now arrived when a readjustment of the charges made by District Surveyors should be considered, and that there should be constituted an authority to whom appeals could be made in the event of difficulties arising with regard to District Surveyors' charges. It seems that in connexion with certain work costing the sum of 75*l.*, which that Council had carried out at one of its public baths, it was required to pay a fee of 33*l.* 10s. to the District Surveyor for inspecting and approving the work.

DEPARTMENTAL COMMITTEE ON SCHOOL BUILDINGS.

Sir J. Rolleston asks the President of the Board of Trade, in Friday's Parliamentary papers, whether, in regard to the Departmental Committee lately appointed to inquire into the cost of public buildings for schools, etc., he will consider the advisability of adding to that Committee the names of one member of the Council of the Institute of British Architects, one member of the Council of the Surveyors' Institution, and one member of the Council of the Institution of Civil Engineers.—Mr. Runciman replies as follows:—"I purposely restricted the membership of the Committee in order that it might be able to report quickly. It is not intended to be a committee of experts who could authoritatively recommend particular materials or methods of construction for adoption by local education authorities. The practical question which lies behind their reference is whether the Board of Education can properly modify their building regulations and entertain or encourage proposals from the local education authorities who are primarily responsible for school buildings for the adoption of new materials and methods, and, if that question is decided in the affirmative, what further arrangements are necessary to give effect to the decision. I think a small committee of administrative officers collecting the best expert opinion on the subject, which I hope will be placed at their disposal by the great bodies named in the question, is the best body to deal with the matter from the point of view which I have indicated."

ARBITRATION CASE.

Mr. Howard Chatfeild Clarke, F.R.I.B.A., sat at the Surveyors' Institution last week as arbitrator in the case of Cohen's Trustees *v.* H.M. Commissioners of Works—a claim for compensation in respect of Nos. 13, 14, 15, 16, and 17, Furnival-street, and four houses in Tooks-court, Holborn Bars. The property is required for the extension of the Patent Office. Sir Edward Clarke, K.C., and Mr. Le Riche appeared for the claimants; and the Attorney-General and Mr. Lowenthal for the Crown.—Mr. C. A. Lang (Messrs. Jones, Lang, & Co.) said that he regarded the property, which had an agreed area of 7,797 sq. ft., as worth a total ground rent of 1,060*l.* 7s. Having allowed one year's peppercorn during building, he capitalised this, at twenty-five years' purchase, 26,500*l.* With the customary allowance of 10 per cent. for compulsory sale, 2,650*l.*, his total valuation amounted to 29,160*l.* Mr. Lang also presented an alternative valuation, on the basis of the income which would be derived from buildings which might be erected on the site, according to plans prepared by Mr. I. Solomon. On this basis the value worked out at 34,680*l.*—Mr. B. I'Anson Breach (Messrs. Farebrother, Ellis, & Co.) and Mr. H. H. Collier (Messrs. H. H. Collier & Madge)

also gave valuations.—The Attorney-General, in opening the case for the Crown, said that the fact that property had depreciated of late had been put to him by witness after witness almost as a circumstance for which he was individually responsible. That prices of property were ruling lower ought to be an advantage to those who sought to buy it. The low prices ought honestly and properly to be taken into account in their valuations. The depression was not due to public causes, but to great mercantile causes. There was no doubt that London had been rebuilt by the square mile in the last fifteen or twenty years, and the demand had now been amply satisfied. There was not an absolutely unlimited demand for high-class premises, and the fact that for the last three or four years depression had characterised the property market in London was an indication that property had previously gone too high. The process of acquiring ramshackle premises and then transforming them into fine flats and offices had its limits. The slackening arose from a falling off in the popular demand. In this case it would have been better to have put the property on the market seven or eight years ago than to have dealt with it as it had been dealt with.—Mr. Howard Martin (Messrs. Thurgood & Martin), past-President of the Surveyors' Institution, estimated the ground rent of the land at 2s. per foot, 731*l.*, which he capitalised at twenty-two years' purchase—16,082*l.* He added the customary allowance of 10 per cent. for compulsory sale, 1,608*l.*, making 17,690*l.* This he deferred until the expiration of the existing leases in 1924, representing, in present money, 8,041*l.* The witness next took the existing buildings for the unexpired term of the lease, net rent 1,017*l.* per annum, 9·9 years' purchase, 10,068*l.*, and, with the allowance thereon for forced sale, his total valuation amounted to 19,919*l.*—Mr. Alexander R. Stenning, F.R.I.B.A. (Messrs. Stenning & Partners), President of the Surveyors' Institution, and Mr. W. Vincent Jull (Messrs. Horne & Co.) also gave valuations.—The award was reserved. —*Times.*

ROYAL SANITARY INSTITUTE.

At an Examination in Sanitary Science as Applied to Buildings and Public Works, held at Southampton on March 11 and 12, five candidates presented themselves, and the following two were granted certificates:—K. Chandra Bannerjee (London); E. Micklewright (Isleworth).

THE CITY OF LONDON DIRECTORY.

Messrs. W. H. & L. Collingridge (148 and 149, Aldersgate-street, E.C.) have just issued a new work, "The City of London Year-Book and Civic Directory," which is intended to take the place of "The City of London Directory," which has been issued yearly for the past thirty-nine years. The work, indeed, might be called a smaller edition of the old work. It is an excellent guide to that which pertains to the civic and commercial life of the City of London, and contains information concerning the Corporation of London, the London County Council, with the members of the committees of each of these bodies, and a complete official list of the members of the Stock Exchange, Baltic, and Lloyd's. The history and incorporation of the Livery Guilds, their income and charities, with details of their activity in extending education, is included, and also lists, with names and addresses, not only of the Court and Livery of each Guild, but the Livery voters of the City of London. Particulars of City schools, churches, and institutions also appear. The price of the Year-Book is 5s. net, and we are glad to notice such an admirable guide to the City.

MILE-END WASTE.

Progress is being made with the improvement of Mile-end Waste, where a grass plot and flower beds, protected with a light railing, have supplanted a congeries of second-hand furniture and scrap-iron "pitches" extending from the gate of the Trinity Hospital to the end of Cambridge-road. The itinerant dealers and stallholders will be provided for in a wide-paved road.

CHESTER PAGEANT.

Mr. G. P. Hawtrey has been appointed master of the historical pageant which will be celebrated in Chester on July 18-22. Two of the episodes to be represented will consist of the story of the clemency of Agricola, and of the water procession of King Edgar on the Dee, in A.D. 973. In the latter tableau 500 fairies will represent the banks of the river.

ROMAN VILLA, NORTHFLEET.

The resumption of the work of excavation on the site of Ebbsfleet pleasure-ground, under the supervision of Mr. W. H. Steadman, and with the consent of the Associated Portland Cement Manufacturers, has resulted in the discovery of another building at about 2 ft. below the foundations. Nearly 400 ft. of the foundation walls of the upper structure have been laid bare. The most recent "finds" comprise a big kiln built of blocks of chalk faced with red clay, which has become burned to red brick; the kiln is considered to be very uncommon in respect of both its materials and size.

TREATMENT OF DECAYED STONE: THE MONUMENT TO SIR JOHN SPENCER IN ST. HELEN'S CHURCH, BISHOPSGATE.

This monument, which originally stood in the south transept of the church, was moved to its present position in the south wall of the nave during the restoration of the church in 1865-8. The main structure is of Derbyshire alabaster, but the effigies of Sir John Spencer, Lady Spencer, the small kneeling figure of their daughter, and the large central coat of arms with its mantling at the top of the monument are all executed in stone and painted. The soft limestone used had become much decayed owing to the action of the London atmosphere, and Sir Arthur H. Church, who was consulted as to the preservation of the monument, recommended the use of the Baryta treatment upon the decayed stonework. This treatment was adopted, and the decayed stone has been entirely consolidated and hardened by its means. The whole of the monument has been thoroughly cleaned, the alabaster and marble with a weak solution of ammonia, and the painted surface with painters' petroleum. The treatment of the stone with Baryta solution was mainly carried out by Mr. Harold H. Church, the cleansing and repair of the monument by Mr. H. Sargeant, sculptor; the whole of the work being under the direction and supervision of Sir Arthur H. Church.

Law Reports.

THE RIGHT OF PUBLIC BODIES TO ERECT LAVATORIES.

A QUESTION of some importance under sect. 164 of the Public Health Act, 1875, came before Mr. Justice Parker in the Chancery Division last week, when his lordship heard the case of the Stourcliffe Estate Company, Ltd., *v.* the Bournemouth Corporation, in which the plaintiffs claimed an injunction to restrain the Corporation from continuing to erect certain lavatories, and for a mandatory order to compel the Corporation to pull down and remove the lavatories.

The facts of the case sufficiently appear from the following judgment:—

His lordship said that by a conveyance dated January 16, 1904, the plaintiff company conveyed to the Corporation certain land in fee simple, and as so much thereof as lay to the north slope of the cliff was to be devoted to the purposes of a public garden or pleasure ground, the Corporation covenanting with the company to "preserve and keep the land to be devoted to pleasure-ground purposes as an open space for the enjoyment of the public in such manner and form as the Corporation shall think best in the interests of the public, subject to no building or erections of any kind being put thereupon except such structures as summerhouses, a bandstand, or shelters, not exceeding 12 ft. in height, for the accommodation and convenience of the public, and subject also to no gravel being dug up or removed from the said piece of land so to be devoted for the purpose of a public garden or pleasure ground, except for the purpose of making such garden or pleasure ground." The Bournemouth Corporation, in acquiring the land, acted under sect. 164 of the Public Health Act, 1875, which provided as follows:—"Any urban authority may purchase, or take on lease, lay out, plant, improve, and maintain lands for the purpose of being used as public walks or pleasure grounds provided by any person whatsoever." Having acquired the land under the section for these purposes, the Corporation, although it could only use the land as a pleasure ground, could erect certain kinds of buildings on the land, such as a museum, conservatory, and free library, and in the present case the Corporation, under the Bournemouth Improvement Act, 1892, had further powers enabling it to erect, maintain, equip, and remove conservatories, refreshment-rooms, and other buildings and conveniences in any public park, garden, or recreation ground which might be required or convenient for the purposes of such park, garden, or ground, and the public resorting thereto. His lordship said that the object of requiring the covenant by the Corporation in the conveyance was to preclude the Corporation from putting up erections and buildings which otherwise the Corporation could have done. In his opinion a public lavatory or urinal or convenience of that kind was not a thing *ejusdem generis* with the shelters and other things mentioned in the covenant. Such an erection as the Corporation were putting up would be contrary to the covenant. The Corporation was endeavouring to comply with a public requirement, and evidently regarded the erection as a sanitary matter, and there was a breach of the covenant. But the second point raised by the Corporation was that the covenant was wholly void, because it was restrictive of the statutory powers of the Corporation conferred on it for the benefit of the public. In the present case the land was not specified in any statute as land which the company could acquire for certain purposes, and the covenant did not prevent the Corporation from using the land for the purposes for which it could be acquired; but only related to certain ancillary powers with which the Corporation was entrusted, but the exercise of which was not imperative. Unless a Corporation could enter into such a covenant the price of land required for the benefit of the public might be often greatly enhanced. He considered the decision to be one of interest to the public. There must be an injunction as asked, but the mandatory portion of it would be stayed for a month to enable the Corporation to consider whether there should be an appeal. The Corporation must pay the costs.

Patents.

APPLICATIONS PUBLISHED.*

4,129 of 1909.—Frederick William Schroeder: Locks.

4,188 of 1909.—John Lowe, James Lowe, and Henry Lowe: Floor cramps.

4,430 of 1909.—Frank Sidebotham Rippingille: Appliance for use in domestic and other firegrates.

8,791 of 1909.—William Henry England: Method of opening and balancing the opening portion of roof skylights, ventilators, and the like.

8,793 of 1909.—William Henry England: Press or push motion for operating doors, locks, latches, bolts, and the like.

9,884 of 1909.—William Calway: Building of concrete cement and like walls.

10,001 of 1909.—Hermann Dahlmann; Spade or shovel.

10,976 of 1909.—William John Stewart: Concrete and other piles and piling.

11,221 of 1909.—Alexander Reeves: Chimney-top.

11,519 of 1909.—Howard Corregan: Means for preventing down-draughts in chimneys and ventilator shafts.

11,525 of 1909.—Samuel Pope: Manufacture of white lead.

12,539 of 1909.—John Brackley: Combined mortise spring bolt and latch.

13,613 of 1909.—John Jesse James: Keyhole escutcheons for doors, drawers, and the like.

13,629 of 1909.—Wilhelm Franke: Automatically opening swinging doors.

14,108 of 1909.—Luke Henry, John James Marnie: Ladders.

16,284 of 1909.—Vernon de Horsey Dowler: Self-closing gates or doors.

23,214 of 1909.—Raffaele Feola: Locks.

25,364 of 1909.—Max Hammer: Locks and latches.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

March 7.—By WM. HOUGHTON.

Clapton.—221, Evering-rd., u.t. 64 yrs., g.r. 8*l.* 10s., y.r. 50*l.*	£400
Stoke Newington.—75, Rectory-rd., u.t. 66 yrs., g.r. 7*l.*, y.r. 40*l.*	270
134, Brooke-rd., u.t. 68 yrs., g.r. 6*l.* 10s., y.r. 36*l.*	305
Walthamstow.—3, Albert-rd., f., y.r. 22*l.*	280
350, Hoe-st., u.t. 69 yrs., g.r. 8*l.* 15s., y.r. 46*l.*	390
Stepney.—32 to 38 (even), Wolsey-st.; 6 and 7, Richardson-st., u.t. 10 yrs., g.r. 15*l.*, w.r. 174*l.* 4s.	380

March 8.—By J. C. PLATT.

Hammersmith.—159 and 161, King-st. (s.), f., y.r. 225*l.*	4,000

By F. VARLEY & SON.

Wood Green.—33, Park-rd., u.t. 73½ yrs., g.r. 8*l.* 10s., y.r. 36*l.*	250
Caledonian-road.—No. 141 (s.), u.t. 30 yrs., g.r. 25*l.*, e.r. 55*l.*	100

By MADDISON, MILES, & MADDISON (at Yarmouth).

Great Yarmouth.—3, Camperdown, u.t. 934 yrs., g.r. 3*l.* 15s., p.	600
29, King-st. (s.), f., y.r. 40*l.*	5 0

SALES—*Continued on page 338.*

* All these applications are in the stage in which opposition to the grant of a patent upon them can be made.

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this Number: Competitions, —; Contracts, iv. vi. viii. x.; Public Appointments, —.; Auction Sales, xxiv.

Certain conditions, beyond those given in the following information, are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bonâ-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

***** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

Competitions.

FEBRUARY 10-MARCH 31. — **Sheffield.** — CHURCH. — Plans desired for church for 650, institute for 150, primary department for 125, junior department for ninety-five, and caretaker's apartments, Endcliffe Park. Premium, not merged in commission, 35*l.* Assessor, Mr. Chas. Hadfield, F.R.I.B.A. Questions until Febuary 10. On receipt of 5s. the Secretary will furnish conditions and instructions, with plan of site. Deposit returned only to those who send plans. Secretary, Mr. J. W. Nicholls, 64, Everton-road, Brocco Bank, Sheffield.

MARCH 21. — **Blawarthill.** — OFFICES.—Architects are invited to send in plans and estimates of the probable cost of offices to be erected for the Renfrew P.C. at Blawarthill, Yoker-road, near Scotstoun West Station. A sketch of the site and other particulars can be had from the Clerk to the Council at 1, Manse-street, Renfrew, on payment of a fee of 10s. No premium will be paid to competitors, and the Council does not bind itself to accept any plan sent in.

APRIL 30.—**Shardlow.**—SEWERAGE, ETC.—Shardlow R.D.C. desire to provide for the sewerage and sewage disposal of the contributory places of Spondon and Breaston, and they invite competitive schemes. Competitors to supply plans, sections, specification, detailed report, and estimate of the probable cost, which are to be delivered at the office of Mr. J. W. Newbold, Clerk to the Council, Becket-street, Derby.

MAY 31. — **Karachi.** — MUNICIPAL OFFICE. — **The Municipality of Karachi invite elevation designs and detailed plans and estimates for a new Municipal Office. For further particulars see advertisement in our issue of December 25.**

JUNE 15. — **Acton.** — NEW SCHOOLS. — The Acton U.D.C. Education Committee invite designs for new schools at Rothschild-road. For further particulars see advertisement in our issue of March 12.

AUGUST 23.—**Navan.**—COUNTY OFFICES.—Meath C.C. invite architects in Ireland to submit plans and specifications for the building of new County Offices at Navan. Copies of Sites Committee Report can be had on application from the Secretary, Meath C.C., Navan.

Contracts.

BUILDING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

MARCH 21.—**Belfast.**—SCHOOLS.—Erection and completion of St. Anthony's male and female schools, Willowfield, Belfast, for the Very Rev. H. Lavety, D.D., P.P., St. Matthew's. Bills of quantities have been prepared by Mr. Acheson Ferguson, Scottish Provident-buildings, Belfast, and can be obtained on deposit of 1*l.* 1s.

MARCH 21.—**Fermanagh (Ireland).**—ENLARGING. —For enlarging Mullaghdun, Co. Fermanagh, National School. Plans, etc., prepared by the Board of Works, can be seen at the residence of the Rev. P. J. Cullinan, C.C., Belcoo.

MARCH 21.—**Liverpool.**—WORKHOUSE ALTERATIONS, ETC.—The Toxteth Park Guardians invite tenders for alterations and additions to the Workhouse, Smithdown-road, Liverpool. Names, etc., to Mr. Walter W. Thomas, M.S.A., Architect and Surveyor, 15, Lord-street, Liverpool. A fee of 3*l.* 3s. will be charged for bills of quantities.

MARCH 21. — **Shrewsbury.** — CORPORATION STABLES AND DEPOT, ROUSHILL.—Name and address to Mr. Arthur E. Williams, Architect and Surveyor, County Chambers, 12, High-street, Shrewsbury, together with a deposit of 2*l.* 2s.

MARCH 22.—**Annfield Plain.**—WAREHOUSE, ETC.—For erection of warehouse, etc., at Annfield Plain, for Mr. G. Atkinson. Plans, etc., may be seen at the office of Mr. T. H. Murray, architect and surveyor, Consett.

MARCH 22.—**Barry.**—SCHOOL WORKS.—Barry Local Education Authority invite tenders for (1) alterations and additions to Holton-road Infants' School, Barry; (2) plumbing work in connexion with such alterations and additions. Plans, etc., can be seen at the offices of the architect, Mr. G. A. Birkenhead, 102, St. Mary-street, Cardiff, and St. Nicholas-road, Barry, from whom bills of quantities, etc., can be obtained on payment of 2*l.* 2s. in the case of the building work, and 1*l.* 1s. in the case of the plumbing work.

MARCH 22.—**Birkenhead.** — WORKHOUSE ALTERATIONS.—The Guardians invite tenders for alterations and additions to the Master's office and the Nurses' Home; also for the erection of a Committee-room, at the Workhouse. Copy of the quantities from Messrs. Edmund Kirby & Sons, architects, 5, Cook-street, Liverpool, upon payment of a deposit of 5*l.* 5s.

MARCH 22.—**Cabrach.**—ADDITIONS, ETC.—Works of additions to and alterations on Cabrach Shooting Lodge. Plans, etc., may be seen at the Estates Office, Drumin, Glenlivet, and at the Estates Office, Fochabers.

MARCH 22.—**Glendurgan (Cornwall).**—COTTAGES. —For building two cottages at Glendurgan. Drawings, etc., may be seen at Wodehouse-place, Falmouth.

MARCH 22. — **Nairn.** — ADDITIONS. — Mason, carpenter, slater, plumber, plaster, and painter works of proposed additions to Millfield, Nairn. Plans, etc., may be seen with Mr. Wm. Mackintosh, architect, Inverness.

MARCH 22. — **Richmond District Asylum (Portrane Branch).** — FARM BUILDINGS. — The Joint Committee of the Asylum invite tenders for the erection of hay shed and lean-to cattle shed, in corrugated iron, at the farmyard at Portrane Branch Asylum, Donabate, Co. Dublin. Plans, etc., prepared by Mr. S. J. M'Clure, may be inspected at office of Mr. W. J. Murphy, Chief Clerk, Grangegorman, Dublin.

MARCH 22. — **St. Helens.** — LAUNDRY, ETC.—For a laundry, etc., at the Borough Sanatorium, for the St. Helens Corporation. Plans, etc., may be seen, and forms, etc., obtained, on application to Mr. Geo. J. C. Broom, M.Inst.C.E., Borough Engineer, Town Hall, St. Helens, on payment of 1*l.* 1s.

MARCH 22. — **Sunderland.**—CHURCH EXTENSION.— Nave and aisle of the new church of St. Aidan, Grangetown, Sunderland. Plans, etc., on application at St. Aidan's Mission-room, Grangetown. Quantities can be obtained, on promise to tender, from Mr. W. Morton, Quantity Surveyor, 45, John-street, Sunderland. Mr. C. Hodgson Fowler, F.S.A., architect, The College, Durham.

MARCH 23. — **Advie.** — HALL, ETC.—New hall and library at Advie, Strathspey. Plans, etc., may be seen with Mr. R. F. Grant, Post-office, Advie.

MARCH 23. — **Cowdenbeath.** — PAVILION. — Brick, joiner, plumber, plaster, and tile works of proposed new golf pavilion, Cowdenbeath. Plans can be seen, and schedules of measurement obtained, from Mr. D. B. Campbell, architect, Cowdenbeath.

MARCH 23. — **Culdaff (Ireland).** — RESIDENCE.— Building parochial residence at Culdaff, Co. Donegal, for Rev. F. M'Cullaph, P.P., according to plans, etc., to be seen at the architect's offices, 6, Castle-street, Londonderry.

MARCH 23.—**Halifax.**—ADDITIONS TO MILLS.—Additions to Bradshaw Mills, near Halifax. Plans, etc., may be seen, and bills of quantities obtained, at offices of Messrs. Clement Williams & Sons, architects, Post-office-buildings, Commercial-street, Halifax.

MARCH 23. — **Halifax.** — WALLS, ETC.—The Health Committee of the Halifax Corporation invite tenders for the erection and construction of retaining walls and roadways and alterations to existing buildings in Charlestown-road, for the purposes of a Health Depôt. Plans, etc., may be seen, and forms of tender obtained, on application to Mr. James Lord, M.Inst.C.E., Borough Engineer, Town Hall, Halifax, upon payment of the sum of 5*l.*

MARCH 23. — **Huncoat.** — CHAPEL. — Erection of a proposed new Baptist Chapel at Huncoat. Plans, etc., at office of Mr. Harry Whitaker, architect, 21, Market-square, Nelson.

MARCH 23. — **Kendal.** — ALTERATIONS.—For alterations to 18, Finkle-street, Kendal, for Mr. Francis Addison. Plans may be seen, and quantities obtained, at the office of Mr. Stephen Shaw, F.R.I.B.A., architect, Kendal.

MARCH 23. — **Manchester.** — BOILER-HOUSE. — The Guardians invite tenders for additions and alterations to the present boiler-house at their Workhouse at Crumpsall. Bills of quantities may be had from the office of Mr. A. J. Murgatroyd, architect, 23, Strutt-street, Manchester, upon payment of a deposit of 10s. 6d.

MARCH 23. — **Penygarn.** — HOUSES.—For taking down existing cottages and erecting two houses at Penygarn, for Mr. D. Rees. Mr. D. C. Udell, architect, Commercial-street, Pontypool.

MARCH 23. — **Porthcawl.** — HOUSES.—Erection of two houses at Porthcawl for the Misses Beak and Poole. Quantities may be obtained from Messrs. Geo. P. Lambert & Son, architects and surveyors, Bridgend, upon the payment of 2*l.* 2s.

MARCH 23.—**Watford.**—IRON BUILDING.—Watford U.D.C. invite tenders for the supply and erection of a steel and corrugated iron building, size 29 ft. by 30 ft. by 24 ft. high (new waterworks, auxiliary pumping station, contract No. 4). The Engineer's specification and particulars may be obtained upon application to Mr. D. Waterhouse, Engineer to the Council, High-street, Watford.

MARCH 24. — **Bangor.** — CLOAKROOMS.—New cloakrooms, etc., at the Garth Council School, Bangor. Plans, etc., to be seen at the school premises. Mr. Rowland Lloyd Jones, County Architect, 14, Market-street, Carnarvon.

* MARCH 24 — **Burghill.** — ISOLATION HOSPITAL.— The Committee of the Hereford County and City Asylum invite tenders for an isolation hospital, etc., at Burghill. See advertisement in this issue for further particulars.

MARCH 24. — **Clayton West.** — SHED.—Tender for the erection of a shed at Clayton West. Names in to Messrs. Samuel Jackson & Son, architects, 11, Tanfield-chambers, Bradford.

MARCH 24. — **Kendal.** — CHURCH WORKS.—Tenders are invited for new chancel, organ-chamber, and vestries, St. George's Church, Kendal. Bills of quantities may be obtained from Messrs. Wright & Son, surveyors, Lancaster.

MARCH 24. — **Thornley.** — WESLEYAN CHAPEL.—For new Sunday schools and institute at Thornley, Co. Durham. Names to the architect, Mr. J. Walton Taylor, F.R.I.B.A., St. John-street, Newcastle-on-Tyne.

MARCH 25. — **Abergavenny.**—RENOVATIONS.—For renovations to the Vine Tree Inn, Llanvetherine, also to the Three Salmons Inn, Llantilio Crossenny, near Abergavenny, for Messrs. Chas. Edwards Brewery, Ltd. Plans, etc., may be obtained at the office of Mr. B. J. Francis, architect, Abergavenny.

MARCH 25. — **Little Mill.** — STABLES.—For taking down existing cottages and erecting two stables, coach-house, boundary walls, etc., at White House, Little Mill, for Mr. D. Buck. Plans may be obtained at the office of Mr. D. C. Udell, architect, Commercial-street, Pontypool.

MARCH 26. — **Barrow-in-Furness.** — ALTERATIONS, ETC.—The Corporation invite tenders for the alterations and additions to Piel View, Public Park. Bills of quantities may be had on application at the Borough Engineer's office, Town Hall.

MARCH 26. — **Elgin.** — ALTERATIONS.—Mason, carpenter, painter, and glazier, and iron work of alterations on property, No. 24, Commerce-street, Elgin. Plans, etc., to be seen with Mr. James Jamieson, architect, 77, High-street, Elgin.

MARCH 28.—**Newbliss.**—CHURCH ADDITIONS.—Additions and alterations to Killeevan Church, Newbliss, County Monaghan, for the Rev. Patrick McDonnell, P.P. Drawings, etc., may be inspected at the Parochial House, Newbliss, or at office of Mr. W. A. Scott, A.R.I.B.A., M.S.A., architect, 45, Mountjoy-square, Dublin.

MARCH 29.—**Hayes.**—PARISH ROOM.—The Executive Committee of St. Mary's Parish Room, Hayes, invite tenders for the erection and completion of St. Mary's Parish Room, Hayes, Middlesex. The specification, etc., may be seen, and forms of tender may be obtained, at "Fairfield," High-road, Hayes, Middlesex, upon payment of a deposit of 1*l.* 1s.

MARCH 29. — **Tredegar.** — HOUSES. — Erection of seventy-six "or more" houses for the Park View Building Club. Plans, etc., may be seen at office of Mr. Wm. Harris, architect and surveyor, Bank-chambers, Bargoed.

MARCH 30. — **Ballyboden.** — LIBRARY. — South Dublin Rural District (Whitechurch Library Committee) invite tenders for the erection of a Public Library at Ballyboden, Rathfarnham, according to plans, etc., prepared by Mr. T. J. Byrne, A.R.I.B.A., architect, 1, James's-street, Dublin. Plans, etc., may be seen, and forms of tender obtained, at the office of the architect.

MARCH 30.—**Chesterfield.**—OFFICES.—The Gas and Water Board invite tenders for the erection of new offices at the junction of West Bars with Foljambe-road. Plans, etc., may be seen, and bills of quantities, etc., obtained, on application to the Borough Surveyor's Office, Salter Gate, Chesterfield, on payment of 3*l.* 3s.

MARCH 30.—**Liverpool.**—OPEN-AIR BATH.—The Corporation invite tenders for the construction of an open-air bath on land in Queen's-drive, Walton. Plans, etc., may be inspected, and quantities obtained, on application to the Engineer and Chief Superintendent, Mr. W. R. Court, at his office, Municipal Offices, Liverpool, on payment of 1*l.* 1s.

MARCH 30.—**Ramsgate.**—NEW ELEMENTARY INFANTS' SCHOOL IN LILLIAN-ROAD.—Names, accompanied by a deposit of 2*l.* 2s., to the architect, Mr. W. T. Stock, at the office of Messrs. Hinds & Son, architects, 57, Queen-street, Ramsgate.

* MARCH 31. — **Chislehurst.** — STABLES, ETC.—The Chislehurst U.D.C. invite tenders for erection of stables, cart sheds, caretaker's house, mortuary, and cemetery chapel at Perry-street, Chislehurst. See advertisement in this issue for further particulars.

MARCH 31.—**Delph.**—PARTITIONS.—For two folding partitions at Delph Council School, for the West Riding C.C. (Saddleworth District Education Sub-Committee). Specifications from Mr. Edgar T. Woodhead, Divisional Clerk, Huddersfield.

MARCH 31.—**Halifax.**—ALTERATIONS TO RESIDENCE.— Works required to be executed in connexion with alterations to residence, Savile Park, Halifax. Bills of quantities may be obtained, and plans and specifications inspected, at offices of Messrs. Clement Williams & Sons, architects, etc., Post-office-buildings, Commercial-street, Halifax.

BUILDING—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders may be sent in.

MARCH 31. — **High Spen and Leadgate.** — ALTERATIONS. — Alterations, etc., to thirty-eight cottages at High Spen, ten cottages at Derwent-cottages, and four cottages at Leadgate, Co. Durham, for the Consett Iron Company, Ltd. Plans, etc., may be seen, and quantities obtained, upon application to the architect, Mr. Chas. E. Oliver, at the company's general offices, Consett.

MARCH 31. — **Larne.**—MISSION HALL WORKS.—Repairing and making additions to the Mission Hall, Pound-street, Larne, County Antrim, for the Trustees of the John Getty Estate. Copy of plans, etc., may be had from Mr. John Seeds, architect, 7, Donegall-square West, Belfast.

* MARCH 31.—**London, S.E.**—LANTERN LIGHT.—The Guardians of Bermondsey invite tenders for providing and fixing lantern light over kitchen at their Workhouse, Tanner-street, Bermondsey, S.E. See advertisement in this issue for further particulars.

MARCH 31. — **Montgomery.**—HOUSE.—Erection of a dwelling-house, etc., at Montgomery, for the Misses James, Plas Offa. Plan, etc., to be obtained on application to Mr. R. W. Davies, M.S.A., architect and surveyor, Carno.

MARCH 31.—**Radyr.**—GOLF CLUB HOUSE.—For erecting a club house. Plans, etc., on payment of 2*l.* 2*s.*, on application to Mr. H. Snell, architect, Hickman-road, Penarth.

MARCH 31. — **Walton-on-Naze.** — SCHOOL.—Essex Education Committee (Tendring District Sub-Committee) invite tenders for the erection of a new public elementary school at Walton-on-Naze. Names to the architects, Messrs. Tomkins, Homer, & Ley, Frinton-on-Sea. A charge of 3*l.* 3*s.* will be made for a copy of the bill of quantities.

MARCH 31. — **Wednesbury.**—CONVENIENCES.—For erection of public sanitary conveniences (exclusive of sanitary fittings) near the Market-place, for the Town Council. Plans, etc., can be inspected, and form of tender obtained, at the offices of Mr. E. Martin Scott, Borough Engineer and Surveyor, Town Hall, Wednesbury.

MARCH 31.—**Wimbledon.**—REPAIRS.—The Wimbledon Public Library Committee invite tenders for repairs to and reglazing of the roof of the reading-room. Specifications, etc., can be seen on application at the Library.

APRIL 1. — **Aston.** — CONVENIENCES. — The West Riding Education Committee invite tenders for drainage and new conveniences, Aston Provided School. Plans may be seen, and specifications, etc., obtained, on application to the Education Architect, County Hall, Wakefield. A sum of 1*l.* must be sent by separate letter to the West Riding Treasurer, County Hall, Wakefield.

APRIL 1.—**Brynmawr.**—COOKERY KITCHEN.—Breconshire Education Committee invite tender for the erection of proposed cookery kitchen and classroom. Names to Mr. Charles W. Best M.Inst.C.E., Surveyor to the Breconshire Education Committee, County Hall, Brecon, accompanied by particulars of works recently carried out and the names of two references relative to the quality of the work done.

APRIL 3.—**Bugle.**—CHAPEL.—Erection of a concrete chapel at Bugle. Plans to be seen at Sunny Bank, Mount Charles, St. Austell.

* APRIL 5. — **Birmingham.** — ALTERATIONS. — The Commissioners of H.M. Works and Public Buildings invite tenders for alterations to Birmingham Head Post-office. See advertisement in this issue for further particulars.

APRIL 5. — **Waltham.** — ALTERATIONS, ETC., TO COUNCIL SCHOOL.—The Committee invite tenders for the execution of certain alterations and repairs at the school. Specifications, etc., prepared by the Committee's Architect, Mr. Wilfrid H. Robinson, of Caxton House, Westminster, can be seen at the house of the Correspondent, Mr. C. J. Wanley Croft, Bridge, Canterbury.

APRIL 9.—**Aberdare.**—ELECTRICITY SUPPLY WORKS. —The U.D.C. invite tenders for the construction of a generating station building, the supply and erection of plant, and the supply and laying of cables, etc. A copy of the specification, etc., may be obtained from Mr. Thos. Phillips, Clerk to the Council, Town Hall, Aberdare, on deposit of 1*l.* 1*s.* The drawings may be inspected at the offices of the engineer, Mr. Stephen Sellon, 36, Victoria-street, Westminster, London, S.W., and at the office of the Surveyor to the Council, Town Hall, Aberdare.

APRIL 11.—**Lincoln.**—ELKESLEY SUPPLY: CONTRACT No. 6, WESTGATE WATER TOWER.—The Corporation invite tenders for the construction of a brick and stone tower, 108 ft. high. Drawings may be seen now, and specification, etc., obtained, at the office of the Engineer, Mr. Neil McK. Barron, Waterworks Engineer, Lincoln, upon production of a receipt from the City Accountant for the sum of 5*l.* 5*s.*

APRIL 21.—**Builth Wells.**—SCHOOL.—Breconshire Education Committee invite tenders for the erection of a new mixed and infants' school (346 places) and cookery kitchen at Builth Wells. Names to Mr. Charles W. Best, M.Inst.C.E., Surveyor to the Breconshire Education Committee, County Hall, Brecon, accompanied by particulars of works recently carried out and the names of two references relative to the quality of the work done.

NO DATE.—**Buckhaven.**—SLAUGHTER-HOUSE.—The T.C. of Buckhaven, Methil, and Innerleven invite offers for the mason and brick work required in connexion with the erection of a public slaughter-house, etc., for the Town Council. Forms of tender, etc., can be had from the Burgh Surveyor, Mr. William D. Telfer, Municipal Buildings, Buckhaven, on payment of a fee of 1*l.* 1*s.*

NO DATE.—**Dundee.**—EXTENSION.—Tenders wanted for brickwork, steelwork, and iron windows for erection of extension to Whitehall Works, Dundee. Particulars may be had on application to Mr. Henry Knuck & Co., or Mr. H. F. Thomson, architect, Castle-street, Dundee.

NO DATE. — **Egremont (Cumberland).** — ADDITIONS, ETC. — For additions and alterations to 11, Main-street, Egremont, the property of Mr. J. Nicholl. Names to Mr. Ernest Martindale, 11, Lowther-street, Whitehaven.

NO DATE.—**Heslerton (West) Carr.**—COTTAGES.—Building of a cottage at Heslerton (West) Carr. For plan and particulars apply to Mr. J. P. Medley, solicitor, 1, Huntriss-row, Scarborough.

NO DATE.—**Llanbadoc.**—INN.—Pulling down and rebuilding the Britannia Inn, at Llanbadoc, near Usk, for Mr. J. Williams. Plans, etc., may be inspected, and bills of quantities obtained, at the office of Messrs. Swalwell & Havard, architects and surveyors, 202, Dock-street, Newport, Mon.

NO DATE.—**Lowestoft.**—BOARDING-HOUSE.—Erection of a boarding-house on the Esplanade, Lowestoft. Drawings, etc., may be seen, and quantities obtained, at the office of the architect, Mr. R. Scott Cockrill, A.R.I.B.A., Crossley House, London-road Lowestoft.

* NO DATE.—**Wye.**—ADDITIONS.—The Governors of the South-Eastern Agricultural College, Wye, invite tenders for additions to the college buildings at Wye. See advertisement in this issue for further particulars.

ENGINEERING, IRON, AND STEEL.

MARCH 21. — **Penarth.** — FOOTBRIDGES. — Penarth U.D.C. invite tenders for the construction of two ferro-concrete (Hennebique system) footbridges in the Dingle. Plans, etc., may be seen, and copies of quantities obtained, on application to Mr. Edgar I. Evans, A.M.Inst.C.E., Surveyor, District Council Offices.

MARCH 22.—**London.**—CRANES.—The Secretary of State for India in Council invites tenders for supply of Goliath cranes. The conditions of contract may obtained on application to the Director-General of Stores, India Office, Whitehall, S.W.

MARCH 22.—**London.**—ENGINES, ETC.—The Directors of Bombay, Baroda, and Central India Railway invite tenders for the supply of oil engines and direct-current dynamos. Forms can be obtained at offices of Mr. C. Crommelin, Secretary, Gloucester House, 2, 3, and 4, Bishopsgate-street Without, London, E.C., on payment of 1*l.* 1*s.* each (which will not be returned).

MARCH 24-31. — **Dartford.** — WHARF.—West Kent Main Sewerage Board invite tenders for construction of timber wharf, Little Powder Creek, Long Reach, Dartford, in accordance with drawing, etc., prepared by Mr. G. Percy Williams, M.Inst.C.E., of 14, Victoria-street, Westminster, Engineer to the Board. Application for quantities to be made in writing to Mr. Henry F. Priter, Secretary to the Board, Office of the Board, Park House, Bromley, Kent, enclosing a postal order for 1*l.* as deposit.

MARCH 25. — **Bellingham.**—BRIDGE WORKS.—Bellingham R.D.C. invite tenders for the erection of masonry abutments and wing walls in connexion with the reconstruction of Longlee Bridge, over the Warks Burn, near Longlee, Wark-on-Tyne. Plans at the Black Bull Hotel, Wark, and may be seen there upon application to Mr. John Charlton. Conditions, etc., may be obtained from Mr. R. E. Riddle, surveyor, Percy-terrace, Bellingham.

MARCH 28. — **Edinburgh.** — SIDINGS AND LOADING BANKS.—The Lord Provost, Magistrates, and Council of the City of Edinburgh invite tenders for the construction of sidings and loading banks at the Gorgie Cattle Markets. The drawings, etc., may be seen at the office of Messrs. Blyth & Westland, C.E., 135, George-street, Edinburgh, and a copy of the specification, etc., may be obtained from them on payment of 1*l.* 1*s.* An assistant engineer will meet intending offerers at the Gorgie Tramway Terminus on the 21st inst. at 12 o'clock noon, to exhibit the plans.

MARCH 28.—**Glasgow.**—FENCING WORK.—The Corporation invite tenders for the iron and steel fencing work required in connexion with the build ings proposed to be erected in Moore-street and Hill-street. Plans may be seen at the office of the City Engineer, and forms of tender obtained at the office of Public Works, City-chambers, 64, Cochrane-street, by depositing 3*l.* 3*s.*

MARCH 30.—**Belfast.**—TRAMWAY RAILS.—The Belfast Harbour Commissioners invite tenders for the supply of about 100 tons of best rolled steel girder tramway rails, with fishplates and bolts. Specification, etc., may be obtained from the Harbour Engineer, Mr. W. Redfern Kelly, M.Inst.C.E.

MARCH 31.—**Long Eaton.**—BRIDGE WORKS.—Long Eaton U.D.C. invite tenders for (1) bridge over Erewash Canal, Sawley-road, Long Eaton; (2) widening of existing bridge over the Erewash Canal, Derby-road. Plans may be inspected, and copies of the general conditions, etc., obtained, from Mr. Frank Worrall, A.M.Inst.C.E., Engineer and Surveyor, Electricity Supply Works, Long Eaton, on payment of the sum of 3*l.* 3*s.*

MARCH 31.—**Salford.**—REPAIRING AND STRENGTHENING PALATINE BRIDGE OVER THE RIVER IRWELL.—The Building and Bridges Committee of the Corporation invite tenders for the provision and erection of the steelwork, etc., brickwork, concrete, etc. Drawings may be seen, and specification, etc., obtained at the offices of the engineers, Messrs. C. S. Allott & Son, 46, Brown-street, Manchester. A deposit of 2*l.* 2*s.* will be required.

MARCH 31. — **Salford.** — WIRING. — The Education Committee invite tenders for the electric wiring of the Wellington-street Boys' Council School, Pendleton. A copy of the specification may be obtained from the Borough Electrical Engineer, Electricity Works, Frederick-road, Pendleton, on payment of a deposit of 1*l.* 1*s.*

APRIL 2.—**Aberdeen.**—RECONSTRUCTING BRIDGE.—For reconstruction of a steel girder bridge over the River Deveron at Cairnford, near Huntly, for the Huntly District Committee. Plans, etc., may be seen with Mr. James Barron, M.Inst.C.E., Central-chambers, 216, Union-street, Aberdeen, from whom schedules of quantities can be obtained on payment of 1*l.*

APRIL 2.—**Bradford.**—STEEL GIRDER TRAM RAILS AND STEEL POLES.—The Corporation invite tenders for the supply and delivery, at Bradford, of steel girder tram rails and steel poles. Drawing, etc., may be obtained at the office of Mr. W. H. & Dawson, City Engineer and Surveyor, Town Hall, Bradford.

APRIL 2.—**Cairnford.** — BRIDGE. — Aberdeen C.C. (Huntly District Committee) invite offers for the reconstruction of a steel girder bridge over the River Deveron at Cairnford, near Huntly. Plans, etc., may be seen with Mr. James Barron, M.Inst.C.E., Central Chambers, 216, Union-street, Aberdeen, from whom schedules of quantities can be obtained on payment of 1*l.*

APRIL 2. — **Perth.**—ROOFING RECONSTRUCTION CONTRACT.—The Perth General Station Joint Committee invite tenders for the repair and reconstruction of the roofing on the west side of Perth General Station. Drawings may be seen at the office of the Engineer-in-Chief of the Caledonian Railway, Buchanan-street Station, Glasgow, where copies of the specification, etc., may be obtained on payment of 2*l.* 2*s.* An assistant engineer will attend at the station on Monday, March 21, at 11.45 a.m., to describe and point out the site of the works.

APRIL 4. — **Glasgow.** — BRIDGE WORKS.—The Corporation invite offers for the steelwork, etc., required in widening the west side of the bridge carrying Finnieston-street over the Glasgow Central Railway. Specifications, etc., may be obtained on application at the office of Public Works, City-chambers, 64, Cochrane-street.

APRIL 4. — **Southampton.**—TRAMWAYS.—The Corporation invite tenders for the construction of tramways in New-road and Northam-road. Plans, etc., may be inspected, and form of tender obtained, at the Tramway Offices upon production of the Borough Treasurer's receipt for a deposit of 3*l.* 3*s.*

APRIL 9. — **Aberdare.** — PLANT. — The U.D.C. of Aberdare invite tenders for the construction of a generating station building, the supply and erection of plant, and the supply and laying of cables, etc. Form of tender, etc., may be obtained from Mr. Thos. Phillips, Clerk to the Council, Town Hall, Aberdare, on deposit of 1*l.* 1*s.* The drawings may be inspected at the offices of the engineer, Mr. Stephen Sellon, 36, Victoria-street, Westminster, London, S.W., and at the office of the Surveyor to the Council, Town Hall, Aberdare.

APRIL 9.—**Avondale.**—BRIDGE.—The District Committee of the Middle Ward of the County of Lanark invite tenders for the removal of the ruins of the old bridge carrying the Waterhead, Peelhill, and Linbank Highway over the Glengavel Water, and the construction of a new steel girder bridge at the place. Plans may be seen, and copies of the specification, etc., obtained, at the office of Mr. W. L. Douglass, C.E., District Engineer, District Offices, Hamilton, on payment of 1*l.* An assistant engineer will meet intending contractors at Strathaven Central Station at 10.38 a.m. on March 22.

APRIL 11. — **Lincoln.** — ELKESLEY WATER SUPPLY: CONTRACT No. 6, STEEL TANK.—The Corporation invite tenders for the supply and erection of watertight steel tank and subsidiary works at Westgate. Drawings, etc., may be obtained at the office of the Engineer, Mr. Neil McK. Barron, Waterworks Engineer, Lincoln, upon production of a receipt from the City Accountant for the sum of 5*l.* 5*s.*

APRIL 14. — **Egypt.** — PUMPING MACHINERY.—The Ministry of Public Works (Egyptian Government) invite tenders for sewage pumping plant. Copies of the conditions of tender, etc., may be obtained on application from Mr. A. L. Webb, C.M.G., Queen Anne's-chambers, Broadway, Westminster, London, S.W., and the Commercial Intelligence Branch of the Board of Trade, London. Copies of the detailed description of work, together with plans, etc., can be obtained upon payment of the sum of 5*l.* 2*s.* 6*d.* from the office of Mr. A. L. Webb.

MISCELLANEOUS.

MARCH 21.—**Kington.**—HAULING.—The R.D.C. invite tenders for hauling stone and other materials. Estimates of quantities and particulars of the several roads may be obtained from the surveyor, Mr. Francis Exton, Broxwood, Pembridge, who will supply forms of tender.

* MARCH 21. — **Portsmouth.** — IRON BUILDING.—The Portsmouth Education Committee invite tenders for a temporary corrugated iron building in playground of the Stamshaw Boys' School. See advertisement in this issue for further particulars.

MARCH 21.—**Tring.**—TEAM LABOUR.—Tring U.D.C. invite tenders for team labour, etc. Forms of tender, etc., may be obtained from Mr. S. S. Gettings, Surveyor's office, Tring.

MARCH 22.—**Carlton.**—FENCING, ETC.—The U.D.C. of Carlton invite tenders for the erection of fence walls, wrought-iron fencing, and urinals, and works of street improvements at Recreation Ground, Cemetery-road. Drawings, etc., can be seen, and bills of quantities obtained, upon application to Mr. J. C. Haller, C.E., the Engineer and Surveyor to the Council, on payment of a deposit of 1*l.* 1*s.*

MARCH 22.—**St. Albans.**—SCAVENGING.—The R.D.C. invite tenders for the removal of the contents of cesspools and pail closets, and the collection of house refuse in the Village of Redbourn. Particulars on application to Mr. R. S. Davey, Sanitary Inspector, 169, Hatfield-road, St. Albans.

MARCH 23.—**Hawarden.**—SCAVENGING.—The R.D.C. of Hawarden invite tenders for scavenging. A specification and plans can be seen on personal application to Mr. Fred. Barrett, Hawarden.

MARCH 24.—**Cork.**—RAILINGS, ETC.—The Guardians invite tenders for Irish-made kitchen range and Irish-made railing for septic tank. Mr. John Cotter, Clerk of Union.

MARCH 24. — **Ipswich.** — STEAM ROLLING. — East Suffolk C.C. invite tenders for steam rolling on 305 miles of main road. Specification, etc., can be obtained on application from the Chief Surveyor, County Hall, Ipswich.

MARCH 24.—**Llandaff.**—SCAVENGING.—Llandaff and Dinas Powis R.D.C. invite separate tenders for (1) removing house refuse and cleansing earth closets, etc., in the No. 1 District of St. Andrews; (2) removing house refuse and cleansing earth closets, etc., in the No. 2 District of St. Andrews. Specifications may be obtained from Mr. M. Warren,

MISCELLANEOUS—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

Clerk, Park House, 20, Park-place, Cardiff, or from Mr. William Morgan, The Cwm, Dinas Powis.

* MARCH 24.—**London.**—GAS FITTING.—The Commissioners of H.M. Works and Public Buildings invite tenders for execution of gas-fitter's work to public buildings etc., in the London district. See advertisement in this issue for further particulars.

MARCH 24.—**Richmond.**—LEADING STONES.—The R.D.C. invite tenders for leading stones to the roads within the district. Forms of tender, etc., may be obtained on application to the surveyor, Mr. John Hodgson, North Cowton.

MARCH 30.—**Belfast.**—TIMBER.—The Belfast Harbour Commissioners invite tenders for the supply of about 270 pieces of Riga timber, particulars of which may be obtained from the Harbour Engineer, Mr. W. Redfern Kelly, M.Inst.C.E.

MARCH 30.—**Leigh.**—FLOOR TILES.—Leigh and Atherton Joint Sewerage Board invite tenders for the supply of 5,658 sq. yds. or thereabouts of perforated earthenware floor tiles, for the bottoms of six percolating filters, Mather-lane, Leigh. A copy of the conditions, etc., can be obtained from Messrs. Banks Fairclough & Stephen, A.M.Inst.C.E., Leigh.

MARCH 30.—**London.**—AIR COMPRESSORS.—Bombay, Baroda, and Central India Railway Directors invite tenders for the supply of air compressors, air locks, etc. Forms, etc., can be obtained at offices of Mr. C. Crommelin, Secretary, Gloucester House, 2, 3, and 4, Bishopsgate-street Without, London, E.C., on payment of 1*l.* 1*s.* each, which will not be returned.

APRIL 5.—**Norton.**—SCAVENGING.—The R.D.C. invite tenders for the emptying of ashpits, etc., in the Parishes of Dore and Totley. Forms from Mr J. E. Moulding, Clerk to the Council, The Edge, Sheffield.

APRIL 7.—**Westminster.**—MOTOR WAGONS AND TRAILERS.—The Westminster City Council invite tenders for the supply and maintenance of one or more (not exceeding seven) petrol motor tip wagons, fitted with interchangeable dust and water bodies, and the supply of one or more (not exceeding seven) trailers. Particulars, etc., may be obtained on application at the Town Clerk's office, Westminster City Hall, Charing Cross-road, W.C.

APRIL 13.—**Chryston and Muirhead.**—SCAVENGING.—The Sub-Committee of the District of the Lower Ward of Lanark invite offers for the work of scavenging the above district for the year, as per the specification, prints of which may be had on application to Mr. Hugh Wallace, Clerk to Sub-Committee.

NO DATE.—**Lindsey.**—SCHOOL FURNITURE.—Lindsey C.C. Education Committee invite tenders for the supply of school furniture. For particulars, etc., apply to the Secretary, 286, High-street, Lincoln.

PAINTING, etc.

MARCH 17.—**King's Langley.**—CLEANING, ETC.—St. Pancras Guardians invite tenders for certain cleansing and painting works at their schools at Leavesden, King's Langley, Herts. Specification to be obtained at office of Mr. J. E. P. Hall, Acting Clerk to the Guardians, Guardians' Office, Pancras-road, N.W.

MARCH 21.—**Norwich.**—PAINTING.—The Education Committee invite tenders for painting (externally) various provided schools. Form of tender, etc., may be obtained at office of Mr. Chas. J. Brown, architect and surveyor, Cathedral Offices, The Close, Norwich, upon payment of a fee of 5*s.* per school.

MARCH 22.—**Preston.**—PAINTING.—The Corporation invite tenders for the painting, etc., at the Police-station, Lancaster-road. Specification, etc., may be obtained at the office of the Borough Surveyor, Town Hall, Preston, on payment of 10*s.*

MARCH 23.—**Bradford.**—CLEANING, ETC.—The Bradford Corporation invite tenders for work required in cleaning and limewashing the abattoirs, etc., at the St. James's Market. General conditions of contract may be seen, and specification, etc., obtained, on application to the City Architect, Bradford.

* MARCH 23.—**Hammersmith.**—CLEANING, PAINTING, ETC.—The Hammersmith B.C. invite tenders for cleaning, painting, and other works at the Ravenscourt Park Library. See advertisement in this issue for further particulars.

MARCH 25.—**Salisbury.**—COLOURING, ETC.—The Committee of Management of the Infirmary invite tenders for colouring, painting, and cleaning the wards and other parts of the Hospital and the Victoria Home. A specification may be seen, and quantities obtained, upon application to Mr. M. Harding, High-street, Salisbury.

ROADS, SANITARY, AND WATER WORKS.

MARCH 21.—**Plymouth.**—MAKING-UP.—The Corporation invite tenders for making-up streets and lanes. Plans, etc., may be seen at offices of Mr. James Paton, Borough Engineer, Municipal Offices, Plymouth.

MARCH 21.—**Settle.**—EXTENSION OF WATER MAINS.—For works to be carried out in the townships of Clapham-cum-Newby and Austwick, for the R.D.C. Plans, etc., may be seen, and bills of quantities, etc., obtained, on application to the Surveyor.

MARCH 22.—**Barnoldswick.**—ROAD WORKS, ETC.—For widening of portions of Gisburn and Skipton roads, for the U.D.C. Drawings, etc., may be seen, and form of tender may be obtained, at the office of Mr. W. Bennett, M.Inst.M.E., Engineer and Surveyor, Town Hall, Barnoldswick, upon payment of a deposit of 10*s.*

MARCH 22.—**Bradfield.**—REPAIR OF DISTRICT ROADS.—Bradfield R.D.C. invite tenders for the repair of the district roads. A form of the specification, etc., may be obtained on application to Mr. John Forrester, District Surveyor, Theale, near Reading.

* MARCH 22.—**Cricklewood.**—ROAD-MAKING.—The Willesden D.C. invite tenders for road-making and paving works in Heber-road, Cricklewood. See advertisement in this issue for further particulars.

MARCH 22.—**Gateshead.**—CEMENT PATH WORK.—Tenders are required for cement path work on various roads and streets. Quantities, etc., may be obtained at the office of Mr. N. P. Pattinson, Borough Engineer, Town Hall, Gateshead.

MARCH 22.—**Horwich.**—NEW STREET WORKS.—The U.D.C. invite tenders for the paving, sewering, levelling, flagging, etc., of several streets off Crown-lane. Plans and sections prepared by the Surveyor, Mr. Thomas Green, may be inspected at offices of Council, Horwich, and bills of quantities, etc., obtained, on payment to the Collector of a deposit of 1*l.*

MARCH 23.—**Caversham.**—SEWER CONNEXIONS.—The U.D.C. invite tenders for connexions to sewers for a period of three years. Specifications, etc., may be obtained on application to Mr. Alfred J. Smith, Surveyor to the Council, Gosbrook-street, Caversham.

MARCH 24.—**Belfast.**—DRAINAGE, ETC.—Belfast Library and Technical Committee invite tenders for drainage and plumbing work at the Central Library, Royal-avenue. Plans, etc., may be seen, and forms of tender obtained at the City Surveyor's office.

MARCH 24.—**Gravesend.**—MAKING-UP.—The T.C. invite tenders for making-up portions of Campbell-road, Granville-road, and Havelock-road. Plans, etc., may be seen at the Borough Surveyor's office, Town Hall, Gravesend.

MARCH 24.—**Prestonpans.**—WATER CHANNEL.—Haddingtonshire C.C. invite tenders for supplying and laying 1,700 lin. yds. or thereby hollow water channel, within the Burgh of Prestonpans. Mr. John D. Watson, County Clerk's office, Haddington.

MARCH 24.—**Tollcross.**—SEWAGE-DISPOSAL WORKS.—The District Committee of the Lower Ward of the County of Lanark invite tenders for the construction of sewage-purification works on the lands of Westthorn, near Tollcross, and about 590 yds. of a brick sewer, etc. Drawings may be seen at the office of Messrs. Warren & Stuart, civil engineers, 94, Hope-street, Glasgow, where copies of the specification, etc., may be obtained on payment of 2*l.* 2*s.*

MARCH 29.—**Polesworth.**—SEWERAGE AND SEWAGE DISPOSAL.—Atherstone R.D.C. invite tenders for laying about 4,000 lin. yds. of stoneware pipe sewers and building the necessary manholes, etc.; also for the construction of sewage tanks, etc. The drawings may be inspected at office of Mr. H. J. Coleby, Engineer and Surveyor, Council Offices, 102, Long-street, Atherstone, where also a copy of the specification, etc., may be obtained upon payment of the sum of 2*l.* 2*s.*

MARCH 29.—**Shanklin.**—CHILLERTON AUXILIARY WATER SUPPLY.—The U.D.C. invite tenders for the supply and delivery of sluice valves, air cocks, hydrants, and surface boxes. Particulars, etc., can be obtained from the Engineer, Mr. Ernest Charles Cooper.

MARCH 29.—**Warblington.**—STREET WORKS.—The U.D.C. of Warblington invite tenders for private street improvements in Victoria-road, Bridge-road, and Washington-road. Plans, etc., can be seen, and forms of tender obtained, on application to Mr. H. W. Stringfellow, C.E., Surveyor to the Council, Council Offices, North-street, Emsworth.

MARCH 30.—**Barnet.**—STREET WORKS.—Barnet U.D.C. invite tenders for making-up Gladsmuir-road and Hadley-grove. Plans, etc., can be seen, and all information obtained, on application to Mr. W. F. Wilkins, M.S.E., surveyor, 40, High-street, Barnet.

MARCH 31.—**Billingborough.**—FLAGGING.—For 400 sq. yds. of 2-in. flagging, for the Highways Committee of the Kesteven C.C. Form of tender may be obtained from Mr. W. B. Purser, County Surveyor, Grantham.

MARCH 31.—**Brandon Colliery.**—MAKING-UP.—For making-up of Railway-street and the road leading from Station-avenue and Commercial-street, for the Brandon and Byshottles U.D.C. Plans may be seen at the office of, and quantities obtained from, Mr Geo. G. Donkin, Surveyor, Langley Moor.

MARCH 31.—**Brigg.**—TAR MACADAM.—The U.D.C. of Brigg invite tenders for the relaying of about 1,400 sq. yds. of Bigby-street with tar macadam. Specifications, etc., can be obtained on application to Mr. G. S. Sowter, Clerk to the Council, Brigg.

MARCH 31.—**Maldon.**—STREET WORKS.—The R.C. invite tenders for the making-up of Mount Pleasant and Tenterfield roads. Plans, etc., may be seen, and forms of tender obtained, at the office of Mr. T. R. Swales, Borough Surveyor.

APRIL 2.—**Llantwit Major.**—WATER WORKS.—Cowbridge R.D.C. invite tenders for the laying of 256 yds. of 3-in. cast-iron pipes. Mr. G. E. Morris, C.E., Surveyor and Engineer, Hill House, Llanblethian, Cowbridge.

APRIL 4.—**Queenstown.**—WATERWORKS.—The U.D.C. invite tenders for the supplying and laying of 4,225 yds. of 12-in. stoneware pipe and 326 yds. of 9-in. cast-iron pipe, together with construction of catchwater tanks, etc., for conveying water from streams in the townlands of Killeena and Cloneen to the existing storage reservoir at Tibbotstown. Plans, etc., by Mr. P. H. McCarthy, B.E., M.Inst.C.E.I., 39, Westmoreland-street, Dublin, can be seen at Town Hall, Queenstown. A copy of the specification, etc., will be supplied on depositing 2*l.* 2*s.* sterling.

* APRIL 7.—**London, S.E.**—DRAINAGE.—The Guardians of the Southwark Union invite tenders for reconstruction of part of drainage and alterations to and addition of new water-closets at Newington Workhouse, S.E. See advertisement in this issue for further particulars.

APRIL 8.—**Hucknall Torkard.**—SEWAGE WORKS.—The U.D.C. invite tenders for sewerage and sewage disposal works. Plans may be seen at the office of the engineers, Messrs. Sands & Walker, Milton-chambers, Nottingham, and copies of conditions, etc., can be obtained on deposit of 3*l.* 3*s.*

* APRIL 11.—**Bath.**—SEWERAGE WORKS.—The Bath Corporation invite tenders for sewerage and sewage disposal works. See advertisement in this issue for further particulars.

* APRIL 11.—**Beckenham.**—ROAD-MAKING.—The Beckenham U.D.C. invite tenders for making-up of Faversham and Shaftesbury roads. See advertisement in this issue for further particulars.

STONES, MATERIAL, AND STORES.

MARCH 21.—**Hexham.**—LIMESTONE, ETC.—Tenders are invited for the supply of limestone and whinstone (for road metal). Printed forms of tender and conditions of contract may be obtained from Mr. J. H. Nicholson, Clerk, offices, Midland Bank-chambers.

MARCH 21.—**Holbeck.**—MATERIALS.—Bricklayer's, joiner's, and plumber's materials, etc. Forms of application may be had on application to Mr. George Diment, Clerk to the Guardians, Poor Law Offices, Holbeck, Leeds.

MARCH 21.—**Rothwell.**—MATERIALS.—The U.D.C. invite tenders for the supply of materials, etc., for a period of twelve months. Specifications, etc., may be obtained on application to Mr. J. Southwart, Surveyor, Council Offices, Rothwell, near Leeds.

MARCH 21.—**Sutton.**—ROAD MATERIALS.—Sutton Bridge U.D.C. invite tenders for the supply of road materials. Samples should be sent addressed to Mr. T. J. Whitehead, surveyor, Oddfellows' Hall, Sutton Bridge. No forms of tender are supplied.

MARCH 21.—**Tynemouth.**—MATERIALS.—The Corporation invite tenders for supplying drain pipes, cement, plumbers' materials, scavengers' brooms, spades, etc. Full particulars, with forms of tender, can be obtained at the office of Mr. John F. Smillie, Borough Surveyor.

MARCH 22.—**Brighton.**—MATERIALS.—The Guardians invite tenders for bricklayers' work and materials, etc. Conditions of contract and forms of tender may be obtained at the Guardians' Clerk's office, Prince's-street.

MARCH 22.—**Shardlow.**—MATERIALS.—Shardlow R.D.C. invite tenders for materials. Forms of tender, etc., to be obtained from Mr. John S. Wooddisse, Surveyor to the Council, Surveyor's office, Aston-on-Trent, Derby.

MARCH 22.—**Ware.**—GRANITE.—The Ware U.D.C. invite tenders for the supply of broken blue Guernsey granite. Mr. Geo. H. Gisby, Clerk to the Council, Ware, Herts.

MARCH 22.—**West Ashford.**—MATERIALS.—The R.D.C. invite tenders for highway materials and haulage. Full particulars, etc., may be obtained from Mr. Alfred Sims Surveyor, Surveyor's office, Charing.

MARCH 23.—**Edinburgh.**—MATERIALS.—The P.C. invite tenders for plumbers' materials, builders' materials. Forms may be obtained from Mr. James Kyd, Inspector and Clerk, chambers, Castle-terrace, Edinburgh.

MARCH 23.—**Ipswich.**—MATERIALS ETC.—The Sanitary Authority invite tenders for the supply of materials and the execution of jobbing work and general repairs. Forms of tender, etc., can be obtained at office of Mr. E. Buckham, Borough Surveyor, Town Hall, Ipswich.

MARCH 23.—**Leeds.**—ARTICLES.—The Sub-Parks (Cemeteries) Committee invite tenders for the supply of grass boards, etc., flags, gravestones. Forms of tender, etc., may be obtained at the office of Mr. W. T. Lancashire, City Engineer, Municipal Buildings, Leeds.

MARCH 23.—**Molesey.**—CONTRACTS.—The U.D.C. of East and West Molesey invite tenders for materials, etc. Specifications, etc., may be obtained upon application to the Surveyor, District Council Office, East Molesey.

MARCH 24.—**Edinburgh.**—STORES.—Edinburgh and Leith Corporations Gas Commissioners invite tenders for the supply of general stores for the year. Schedules, etc., may be seen, and further information obtained, upon application to Mr. W. R. Herring, the Commissioners' Engineer and General Manager, at his office, Calton-hill, Edinburgh.

MARCH 24.—**Horbury.**—MATERIALS.—The U.D.C. invite tenders for the supply of granite, whinstone, limestone, kerbs, and setts, etc., during twelve months. Forms of tender, etc., may be obtained on application to Mr. J. H. Drew, Engineer and Surveyor, Town Hall, Horbury.

MARCH 24.—**Slaithwaite.**—GRANITE.—The U.D.C. invite tenders for the supply of 300 tons of Penmaenmawr granite. Mr. Edwin Gledhill, Clerk.

MARCH 24.—**Whittingham, Preston.**—SUPPLIES.—Supply of articles. Forms of tender, etc., may be obtained on application to Mr. Wm. N. Baldwin, Clerk and Steward, at the Asylum.

MARCH 25.—**Chelmsford.**—MATERIALS, ETC.—Chelmsford R.D.C. invite tenders for (1) labour, haulage, and the supply of materials on highways; (2) the supply of broken granite; (3) the supply of broken Kent flints; (4) the hire of steam road rollers. Forms of tender may be obtained from Mr. F. E. H. Powell, Surveyor of Highways.

MARCH 26.—**Horsham.**—MATERIALS, ETC.—Horsham R.D.C. invite tenders for materials, carting, and steam rolling for year. Further particulars, etc., may be obtained of the surveyor, Mr. W. Dengate, 56, Park-street, Horsham, on receipt of a stamped and addressed foolscap envelope.

MARCH 26.—**Waterloo-with-Seaforth.**—STORES.—The U.D.C. invite tenders for the supply of materials. Specifications, etc., may be obtained on application from Mr. F. Spencer Yates, A.M.Inst.C.E., the Surveyor to the Council, at the Town Hall, Waterloo.

MARCH 28.—**Edinburgh.**—ELECTRICITY SUPPLY.—Edinburgh Corporation invite tenders for the supply of material for the Electricity Supply Department for the year. Specifications, etc., can be obtained at the Engineer's office, Dewar-place, Edinburgh, on payment of a deposit of 10*s.* for each specification.

MARCH 28.—**Tenterden.**—MATERIALS.—Tenterden R.D.C. invite tenders for supplying and delivering materials. Further particulars, etc., may be obtained of Mr. W. L. C. Turner, District Surveyor, Tenterden.

MARCH 29.—**Cork.**—MATERIALS.—Cork Harbour Commissioners invite tenders for annual supplies.

STORES, etc.—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

The forms of contract, etc., can be inspected at the Engineer's office.

MARCH 29.—**Failsworth.**—MATERIALS AND STORES.—The U.D.C. invite tenders for the supply of materials and stores. Forms of tender, etc., may be obtained at the office of Mr. G. F. Gray, Surveyor to the Council.

MARCH 29.—**Withnell.**—MATERIALS.—The U.D.C. invite tenders for broken granite, limestone, setts, and kerbs, etc. Particulars, etc., may be had from Mr. Thomas Moss, Surveyor.

MARCH 30.—**Erdington.**—MATERIALS.—The U.D.C. Highways and Buildings Committee invite tenders for supply of stores. Copies of specification, etc., may be obtained upon application to Mr. Herbert H. Humphries, Engineer and Surveyor to the Council, Council House, Erdington.

MARCH 30.—**Gravesend.**—TIMBER.—Gravesend and Milton Guardians invite tenders for the supply of 70 fathoms of best Swedish yellow deal and batten ends. Forms will be supplied by Mr. Wm. Jno. King, Clerk to the Guardians, Town Hall-buildings, Gravesend.

MARCH 31.—**Sunderland.**—STORES.—The Corporation invite tenders for stores used in connexion with the electric tramways. Further particulars, etc., may be had, and samples inspected, on application to the General Manager, Mr. A. R. Dayson, Tramways Offices, Sunderland.

APRIL 1.—**Hoylake.**—CONTRACTS.—The U.D.C. of Hoylake and West Kirby invite tenders for the supply and delivery of kerbs, channels, setts, cement concrete flags, etc. Specifications, etc., may be obtained upon written application to the Engineer and Surveyor to the Council, D.C. Offices, Hoylake.

APRIL 1.—**Ramsey, Huntingdonshire.**—ROAD MATERIAL.—The U.D.C. invite tenders for the supply of granite, etc. No forms of tender are issued. Mr. Richd. F. Serjeant, Clerk to the Council, Ramsey, Huntingdonshire.

APRIL 2.—**Blean.**—MATERIALS.—The R.D.C. of Blean invite tenders for road materials, team labour, and steam rolling. Form to be obtained from the Clerk to the Council, 39, Castle-street, Canterbury.

APRIL 2.—**Sudbury.**—ANNUAL CONTRACTS.—The Corporation invite tenders for the supply and delivery of broken granite, oils, etc., cement, etc., for the year. Full particulars, etc., may be obtained on application to Mr. Wm. I. Tait, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Sudbury, Suffolk.

APRIL 4.—**Middleton.**—MATERIALS.—The Corporation invite tenders for setts, flags, sanitary tubes, granite, macadam. Further particulars and form of tender may be obtained from Mr. Welburn, Borough Surveyor, Town Hall, Middleton.

APRIL 5.—**Birmingham.**—ALTERATIONS.—The Commissioners of H.M. Works and Public Buildings invite tenders for alterations to Birmingham head Post-office. Drawings, etc., may be seen on application to H.M. Office of Works, Birmingham. Bills of quantities, etc., may be obtained at H.M. Office of Works, Storey's-gate, London, S.W., on payment of 1*l.* 1*s.*

APRIL 7.—**Eastbourne.**—MATERIALS.—The R.D.C. invite tenders for stone, flints, beach, and cartage. Forms of tender may be obtained from Mr. T. E. Varley Kirtlan, Clerk to the Council, 92, Terminus-road, Eastbourne, or Mr. C. M. Carter, "Mount Sorrel," Hampden Park, near Eastbourne, on forwarding stamped addressed foolscap envelope.

NO DATE.—**Fleetwood.**—TILES.—55,000 roof tiles, seconds quality; delivered to Fleetwood Station. Tenders and samples sent to 68, Addison-road, Fleetwood, for Mr. W. J. Edmondson.

NO DATE.—**York.**—SAND, ETC.—Tenders are invited for the supply and delivery for sand, gravel, etc. Apply the architect, Messrs. Rowntree & Co., Ltd., York.

Auction Sales.

Nature and Place of Sale.	By whom Offered.	Date of Sale.
*CONTRACTORS' PLANT AND MACHINERY, WILLESDEN JUNCTION.—On the Premises	Fuller, Horsey, Sons, & Cassell	Mar. 22
*OLD BUILDING MATERIALS, UPPER TULSE HILL—On the Site	Veryard & Yates	Mar. 22
*OLD BUILDING MATERIALS, ISLEWORTH—On the Site	Veryard & Yates	Mar. 23
*DEALS, BATTENS, BOARDS, TIMBER, Etc.—Great Hall, Winchester House, E.C.	Churchill & Sim	Mar. 23
*MACHINERY AND BUILDING MATERIALS, CHADWELL HEATH—On the Premises	P. G. Ashton	Mar. 23
*FREEHOLD BUILDING ESTATE, ASHFORD, MIDDLESEX—At the Mart	Fox & Bousfield	April 6
*FREEHOLD PROPERTY, THAMES DITTON—At the Mart	Driver, Jonas, & Co.	April 19
*FREEHOLD ESTATE, PALMER'S GREEN, N.—At the Mart	Driver, Jonas, & Co.	April 19
*FREEHOLD BUILDING LAND, HAMPTON-ON-THAMES—Mitre Hotel, Hampton Court	Messrs. Nicholas	April 26
*GENTLEMAN'S COUNTRY SEAT, BITTERNE, NR. SOUTHAMPTON—Dolphin Hotel, Southampton	Messrs. Nicholas	May 4

SALES—*Continued from page 334.*

March 9.—By HENRY HOLMES & Co.

Gunnersbury.—22, Grosvenor-rd., f., p.	£820
Poplar.—Chrisp-st., The Coach and Horses b.h., f., y.r. 60*l.*	750
Hampstead-road.—44, 46 and 48, Edward-st. (s.), u.t. 15 yrs., g.r. 12*l.*, gross rental 263*l.* 10*s.*	460
St. Pancras.—58, Belmont-st., u.t. 53¼ yrs., g.r. 6*l.* 6*s.*, w.r. 62*l.* 8*s.*	285

By MARSH & MARSH.

Kensington.—42 to 50 (even), Abingdon-rd., f., y.r. 250*l.*	4,500
61, 63, and 65, Abingdon-rd., u.t. 50 yrs., g.r. 21*l.*, y.r. 182*l.* 10*s.*	1,800

By DOUGLAS, YOUNG, & Co.

Clapham.—Atkins-rd., Montevideo, and ¾ acre, u.t. 20 yrs., g.r. 20*l.*, p.	115

By F. VARLEY & SON (on premises).

Hornsey.—16, Harringay-gr., u.t. 36 yrs., g.r. 5*l.*, e.r. 26*l.*	170

By WALLER & KING (on premises).

Southampton.—6, Portswood-pk., f., p.	800

March 10.—HERBERT HOOKEY & Co.

West Ham.—Royal-rd., f.g.r. 27*l.*, reversion in 71 yrs.	560

By C. C. & T. MOORE.

Bow.—18, Medway-rd., u.t. 40 yrs., g.r. 4*l.*, w.r. 39*l.*	200
Stepney.—258, Oxford-st. (s.), u.t. 13½ yrs., g.r. 4*l.*, y.r. 40*l.*	125

By ROBSON & PERRIN.

Crouch End.—31, Cecile-pk., u.t. 71 yrs., g.r. 9*l.*, e.r. 55*l.*	395

By STIMSON & SONS.

Clapham.—42 to 48 (even), Larkhall-la., f., w.r. 156*l.*	1,270
47, Dorset-rd.; 1, 2, and 3, Kelliers Cottages, u.t. 15 yrs., g.r. 8*l.* 17*s.* 6*d.*, y.r. 65*l.*	195
New Charlton.—1 to 11 (odd), 4, 8, and 10, Morley-rd., u.t. 93 yrs., g.r. 45*l.*, w.r. 234*l.*	720
Brixton.—186, Ferndale-rd., u.t. 54½ yrs., g.r. 8*l.*, y.r. 30*l.*	255
Streatham.—33, Lewin-rd., f., y.r. 45*l.*	550
Tottenham.—25, Summerhill-rd., f., y.r. 24*l.*	350

March 11.—By FULLER, MOON, & FULLER.

Thornton Heath.—Brigstock-rd., parcel of building land, 4¼ acres, f.	5,500
376 and 378, London-rd.; 4 to 9, Thornton-row, 1½ acre, f.	3,000
1 and . Colliers Water-la., f., w.r. 28*l.* 12*s.*	200
114, 116, 133, 139, and 141, Brigstock-rd., f., y.r. 288*l.*	3,740

By HUNTER & HUNTER.

Edgware-road.—No. 163, u.t. 10½ yrs., g.r. 8*l.*, p.	335
Peckham.—97 and 99, Fenham-rd., f., w.r. 54*l.* 12*s.*	400
New Cross.—1, Batavia-rd., u.t. 57 yrs., g.r. 5*l.*, w.r. 33*l.* 16*s.*	150

By MONTAGU & ROBINSON.

Clapton.—16 to 48 (even), Rushmore-rd., f. and u.t. 84 yrs., g.r. 104*l.*, y. and e.r. 1,019*l.*	2,720

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beerhouse; p.h. for public-house; o. for offices; s. for shops; ct. for court.

PRICES CURRENT OF MATERIALS.

***** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.**

BRICKS, &c.

Per 1000 Alongside, in River.	£ s. d.
Best Stocks	1 8 0

Per 1000, Delivered at Railway Depôt.

	£ s. d.		£ s. d.
Picked Stocks for Facings	2 10 0	D'ble Stretchers	16 7 6
Flettons	1 6 0	Double Headers	13 7 6
Best Fareham Red	3 12 0	One Side and two Ends	17 7 6
Best Red Pressed Ruabon Facing	5 0 0	Two Sides and one End	18 7 6
Best Blue Pressed Staffordshire	3 15 0	Splays & Squints	15 17 6
Do. Bullnose	4 0 0	Best Dipped Salt Glzd. Str'tch'rs	10 17 6
Best Stourbridge Fire Bricks	3 14 0	Headers	10 7 6
GLAZED BRICKS.		Quoins, Bullnose, and Flats	14 7 6
Best White and Ivory Glazed Stretchers	10 17 6	D'ble Stretchers	16 7 6
Headers	10 7 6	Double Headers	13 7 6
Quoins, Bullnose, and Flats	14 7 6	One Side and two Ends	17 7 6
		Two Sides and one End	18 7 6
		Splays & Squints	15 17 6

Second Quality White and Dipped Salt Glazed, £1 5*s.* per 1000 less than best.

	s. d.	
Thames and Pit Sand	6 6	per yard delivered.
Thames Ballast	5 0	,, ,,
Best Portland Cement	28 0	per ton, ,,
Best Ground Blue Lias Lime	19 0	,, ,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 11*s.* 6*d.* per yard, delivered.
Stourbridge Fireclay in sacks 27*s.* 0*d.* per ton at rly. dpt.

STONE.

Per Ft. Cube.	s. d.
BATH STONE—delivered on road waggons, Paddington Depôt	1 6½
Do. do. delivered on road waggons, Nine Elms Depôt	1 8½
PORTLAND STONE (20 ft. average)—	
Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 1
White Basebed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 2½

Per Ft. Cube, Delivered at Railway Depôt.

	s. d.		s. d.
Ancaster in blocks	1 10	Bed Corsehill in blocks	2 2
Beer in blocks	1 6	Closeburn Red Freestone	2 0
Greenshill in blocks	1 10	Red Mansfield Freestone	2 4
Darley Dale in blocks	2 4		

YORK STONE—*Robin Hood Quality.*

	s. d.
Scappled random blocks	2 10

STONE (*continued*).

Per Ft. Super., Delivered at Railway Depôt.

	s. d.
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3
6 in. rubbed two sides ditto, ditto	2 6
3 in. sawn two sides slabs (random sizes)	0 11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 7½
1½ in. to 2 in. ditto, ditto	0 6

Per Ft. Cube, Delivered at Railway Depôt.

Scappled random blocks	3 0

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 8
6 in. rubbed two sides ditto	3 0
3 in. sawn two sides slabs (random sizes)	1 2
2 in. self-faced random flags	0 5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£ s. d.	In. In.	£ s. d.
20×10 best blue Bangor	13 2 6	20×10 best Eur'ka unfading green	15 17 6
20×12 ditto	13 17 6	20×12 ditto	18 7 6
20×10 1st quality ditto	13 0 0	18×10 ditto	13 5 0
20×12 ditto	13 15 0	16×8 ditto	10 5 0
16×8 ditto	7 5 0	20×10 permanent green	11 13 6
22×10 best blue Portmadoc	12 12 6	18×10 ditto	9 12 6
16×8 ditto	6 12 6	16×8 ditto	6 12 6

TILES.

At Railway Depôt.

	s. d.		s. d.
Best plain red roofing (per 1000)	42 0	Best "Rosemary" brand plain (per 1000)	48 0
Hip and Valley per doz.)	3 7	Best Ornamental (per 1000)	50 0
Best Broseley (per 1000)	50 0	Hip (per doz.)	4 0
Do. Ornamental (per 1000)	52 6	Valley (per doz.)	3 8
Hip and Valley (per doz.)	4 0	Best "Hartshill" brand, plain sand-faced (per 1000)	50 0
Best Ruabon red, brown, or brindled (Edw'ds) (per 1000)	57 6	Do. pressed (per 1000)	47 6
Do. Ornamental (per 1000)	60 0	Do. Ornamental (per 1000)	50 0
Hip (per doz.)	4 0	Hip (per doz.)	4 0
Valley (per doz.)	3 0	Valley (per doz.)	3 6
Best Red or Mottled Staffordshire do. (Peakes) (per 1000)	51 9	Staffords. (Hanley) Reds or Brindled (per 1000)	42 6
Do. Ornamental do. (per 1000)	54 6	Hand-made sand-faced (per 1000)	45 0
Hip (per doz.)	4 1	Hip (per doz.)	4 0
Valley (per doz.	3 8	Valley (per doz.)	3 6

WOOD.

BUILDING WOOD.	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14 0 0	... 15 10 0
Deals: best 3 by 9	13 10 0	... 14 10 0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11 10 0	... 12 10 0
Battens: best 2½ by 6 and 3 by 6	0 10 0	less than 7 in. and 8 in.
Deals: seconds	1 0 0	less than best.
Battens: seconds	0 10 0	" "
2 in. by 4 in. and 3 in. by 6 in.	9 10 0	... 10 10 0
2 in. by 4½ in. and 3 in. by 5 in.	9 0 0	... 10 0 0
Foreign Sawn Boards— 1 in. and 1½ in. by 7 in.	0 10 0	more than battens.
¾ in.	1 0 0	"

WOOD (*continued*).

BUILDING WOOD—(*continued*)	At per load of 50 ft. £ s. d.			£ s. d.	
Fir timber: best middling Dantzig or Memel (average specification)	5	0	0	5	10 0
Seconds	4	10	0	5	0 0
Small timber (8 in. to 10 in.)	3	17	6	4	0 0
Small timber (6 in. to 8 in.)	3	5	0	3	10 0
Swedish balks	2	12	6	3	0 0
Pitch-pine timber (30 ft. average)	4	10	0	5	5 0
JOINERS' WOOD.	At per standard.				
White Sea: first yellow deals, 3 in. by 11 in.	24	10	0	25	10 0
3 in. by 9 in.	22	10	0	23	10 0
Battens, 2½ in. and 3 in. by 7 in.	17	0	0	18	0 0
Second yellow deals, 3in. by 11 in.	19	0	0	20	0 0
" 3 in. by 9 in.	18	0	0	19	10 0
Battens, 2½ in. and 3 in. by 7 in.	14	0	0	15	0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	14	0	0	15	0 0
Battens, 2½ in. and 3 in. by 7 in.	1	10	0	12	10 0
Petersburg: first yellow deals, 3 in. by 11 in.	21	10	0	22	10 0
3 in. by 9 in.	18	10	0	19	10 0
Do. 3 in. by 9 in.	14	0	0	15	0 0
Battens					
Second yellow deals, 3 in. by 11 in.	16	10	0	17	10 0
Do. 3 in. by 9 in.	15	0	0	16	0 0
Battens	11	10	0	12	10 0
Third yellow deals, 3 in. by 11 in.	13	10	0	14	10 0
Do. 3 in. by 9 in.	13	0	0	14	0 0
Battens	10	10	0	11	0 0
White Sea and Petersburg—First white deals, 3 in. by 11 in.	15	0	0	16	0 0
" " 3 in. by 9 in.	14	0	0	14	10 0
Battens	11	10	0	12	10 0
Second white deals, 3 in. by 11 in.	14	0	0	15	0 0
" " 3 in. by 9 in.	13	0	0	14	0 0
Battens	10	10	0	11	0 0
Pitch-pine: deals	19	0	0	21	0 0
Under 2 in. thick extra	0	10	0	1	0 0
Yellow pine—First, regular sizes	44	0	0	upwards.	
Oddments	32	0	0	"	
Seconds, regular sizes	33	0	0	"	
Oddments	28	0	0	"	
Kauri Pine—Planks, per ft. cube	0	3	6	0	5 0
Dantzig and Stettin Oak Logs—Large, per ft. cube	0	3	0	0	3 9
Small " "	0	2	6	0	2 6
Wainscot Oak Logs, per ft. cube	0	5	6	0	6 0
Dry Wainscot Oak, per ft. sup. as inch	0	0	8½	0	0 9½
¼ in. do. do	0	0	7	—	
Dry Mahogany—Honduras, Tabasco, per ft. super. as inch	0	0	10	0	1 1
Selected, Figury, per ft. super as inch	0	1	6	0	2 6
Dry Walnut, American, per ft. super. as inch	0	0	10	0	1 0
Teak, per load	18	0	0	22	0 0
American Whitewood Planks, per ft. cube	0	4	0	0	5 0
Prepared Flooring, etc.—	Per square.				
1 in. by 7 in. yellow, planed and shot	0	13	6	0	17 0
1 in. by 7 in. yellow, planed and matched	0	14	0	0	18 0
1¼ in. by 7 in. yellow, planed and matched	0	16	0	1	0 0
1 in. by 7 in. white, planed and shot	0	12	0	0	14 6
1 in. by 7 in. white, planed and matched	0	12	6	0	15 0
1¼ in. by 7 in. white, planed and matched	0	15	0	0	16 6
¾ in. by 7 in. yellow, matched and beaded or V-jointed brds.	0	11	0	0	13 6
1 in. by 7 in. " "	0	14	0	0	18 0
¾ in. by 7 in. white " "	0	10	0	0	11 6
1 in. by 7 in. " "	0	12	9	0	15 0

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £ s. d.			£ s. d.	
Rolled Steel Joists, ordinary sections	7	0	0	7	10 0
Compound Girders, ordinary sections	9	0	0	10	0 0
Steel Compound Stanchions	11	0	0	12	0 0
Angles, Tees, and Channels, ordinary sections	9	0	0	10	0 0
Flitch Plates	9	0	0	9	10 0
Cast Iron Columns and Stanchions including ordinary patterns	7	10	0	8	10 0

METALS.

	Per ton, in London. £ s. d.			£ s. d.	
IRON—					
Common Bars	8	10	0	9	0 0
Staffordshire Crown Bars, good merchant quality	8	15	0	9	5 0
Staffordshire "Marked Bars"	10	10	0	—	
Mild Steel Bars	8	15	0	9	5 0
Hoop Iron, basis price	9	5	0	9	10 0
" " Galvanised	17	0	0	—	
("And upwards, according to size and gauge.)					
Sheet Iron Black—					
Ordinary sizes to 20 g.	9	15	0	—	
" " 24 g.	10	15	0	—	
" " 26 g.	12	5	0	—	
Sheet Iron, Galvanised, flat, ordinary quality—					
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15	0	0	—	
Ordinary sizes to 22 g. and 24 g.	15	10	0	—	
" " 26 g.	16	10	0	—	
Sheet Iron, Galvanised, flat, best quality—					
Ordinary sizes to 20 g.	18	0	0	—	
" " 22 g. and 24 g.	18	10	0	—	
" " 26 g.	20	0	0	—	
Galvanised Corrugated Sheets—					
Ordinary sizes, 6 ft. to 8 ft. 20 g.	14	10	0	—	
" " 22 g. and 24 g.	14	15	0	—	
" " 26 g.	16	5	0	—	
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12	0	0	—	
Best Soft Steel Sheets, 22 g. & 24 g.	13	0	0	—	
" " 26 g.	15	0	0	—	
Cut Nails, 3 in. to 6 in.	10	10	0	11	0 0
(Under 3 in., usual trade extras.)					

LEAD, &c. Per ton, in London.

	£ s. d.				
LEAD—Sheet, English, 4lb. and up.	16	15	0	...	—
Pipe in coils	17	5	0	...	—
Soil pipe	20	5	0	...	—
Compo pipe	20	5	0	...	—
ZINC—Sheet—	In casks of 10 cwt.				
Vieille Montagne	28	12	6	...	—
Silesian	28	5	0	...	—
Zinc, in bundles, 1s. per cwt. extra.					
COPPER—					
Strong Sheet, per lb.	0	1	0	...	—
Thin " "	0	1	1	...	—
Copper nails "	0	0	10	...	—
Copper wire "	0	0	10	...	—
BRASS—					
Strong Sheet "	0	0	11	...	—
Thin "	0	1	0	...	—
TIN—English Ingots "	0	1	6	...	—
SOLDER—Plumbers' "	0	0	7	...	—
Tinmen's "	0	0	9	...	—
Blowpipe "	0	1	0	...	—

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per Ft., Delivered.

15 oz. thirds	2d.	26 oz. fourths	3d.
" fourths	1½d.	32 oz. thirds	4½d.
21 oz. thirds	2½d.	" fourths	4½d.
" fourths	2½d.	Fluted Sheet, 15 oz.	3½d
26 oz. thirds	3½d.	" 21 oz.	4½d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

Per Ft., Delivered.

¼ Hartley's	2½d.	Figured, Oxford Rolled, & 'Oceanic' Glass, white	3½d.
⅜ "	2½d.		
½ "	2½d.	Ditto, tinted	5d.

OILS, &c.

		£ s. d.	
Raw Linseed Oil in pipes	per gallon	0 2 11	
" " in barrels	"	0 3 0	
" " in drums	"	0 3 3	
Boiled " in barrels	"	0 3 3	
" " in drums	"	0 3 6	
Turpentine in barrels	"	0 3 6	
" in drums	"	0 3 8	
Genuine Ground English White Lead	per ton	20 10 0	
Red Lead, Dry	"	20 0 0	
Best Linseed Oil Putty	per cwt.	0 7 6	
Stockholm Tar	per barrel	1 12 0	

VARNISHES, &c. Per gallon.

	£ s. d.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 6
Fine Elastic Carriage	0 12 0
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flating Varnish	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 9
French and Brush Polish	0 10 6

TENDERS.

*** Next week communications for insertion under this heading must reach us not later than 9 a.m. on Wednesday, as, owing to the Easter holidays, we go to press a day earlier than usual.

* Denotes *accepted*. † Denotes *provisionally accepted*.

RINGLEY.—For the construction of a service reservoir at Kettlewell Close, for the Urban District Council. Mr. H. Bottomley, Engineer and Surveyor, Town Hall, Bingley:—

W. Morley & Sons	£2,140 12 2
Staveley Coal and Iron Co.	104 0 9
J. Lees & Sons	59 12 3

CARSHALTON.—For making-up Ruskin-road and Cambridge-road, for the Urban District Council. Mr. W. Willis Gale, A.M.Inst.C.E., Surveyor, Council Offices, The Square, Carshalton:—

Ruskin-road.

G. G. Rayner	£1,5 8 5 5	Mowlem & Co.	£958 0 0
Glenn & Co.	1,480 16 0	H. M. Blaker	914 6 0
R. W. Swaker	1,117 13 7	J. May	877 15 8
E. & E. Iles	1,064 0 0	F. Potter, Sutton*	810 15 8
E. B. Yewen	995 3 0		
Free & Sons	982 17 8		

[Surveyor's estimate, £870 12s. 8d.]

Cambridge-road (*on Amended Quantities*).

Glenn & Co.	£535 14 8	Mowlem & Co.	£377 0 0
R. W. Swaker	536 2 2	R. G. How	358 4 7
E. B. Yewen	472 12 9	H. M. Blaker	347 15 2
Free & Sons	462 10 9	F. Potter	336 0 10
G. G. Rayner	404 3 3	J. May, Ashtead*	329 8 11
E. & E. Iles	395 0 0		

[Surveyor's estimate, £363 7s. 9d.]

CHOLSEY (Berks).—For the enlargement of the Council school, for the Berkshire Education Committee:—

Stephens, Bastow, & Co.	£1,652 0 0	E. F. McCarthy	£1,375 0 0
W. T. Bloxham	1,531 0 0	Brasher & Sons	1,315 12 1
J. Smallbone & Sons	1,426 10 0	G. H. Wheeler	1,310 19 8
H. W. Godwin	1,419 0 0	Bosher & Sons, Cholsey‡	1,308 8 6
		A. J. Colborne	1,288 15 3

‡ Recommended for acceptance.

DARTFORD.—For constructing an open-air swimming-bath, for the Urban District Council:—

J. W. Ellingham, Dartford* £1,238

DEVONPORT.—For levelling, paving, and completing the following road and lanes, viz., Contract No. 157—lane rear of Nos. 129 to 138, Alexandra-road; Contract No. 162—Onslow-road, Pever-ll; Contract No. 167—lane rear of Nos. 1 to 8, Beresford-terrace, for the Borough Council. Mr. J. F. Burns, Borough Surveyor, Municipal Offices, Devonport:—

Contract No. 157.

Jefford & Sons, Saltash, near Devonport	£82 12 4

Contract No. 162.

T. Doney, Devonport	£280 4 10

Contract No. 167.

T. Doney, Devonport	£30 16 9

GLAZEBURY.—For additions to "Ward's End" Farm, Glazebury, Radcliffe Estates Company, Ltd. Messrs. J. B. & W. Thornley, architects, Wigan:—

H. & F. Lomax	£290	Clarke & Mather	£177
J. Ellison	236	A. E. Prescott, Leigh, near Manchester*‡	168
H. L. Lee	181		

‡ Exclusive of washhouse.

IBSTOCK.—For enlargement of Council school, for the Leicestershire County Council Education Committee. Mr. W. M. Cowdell, architect, Greyfriars, Leicester. Quantities by Mr. E. G. Fowler, County Education Office, Leicester:—

J. Cole & Sons	£889 0	E. Haycock	£812 0
W. F. Harding	884 0	Haycock Bros.	800 3
Bowles & Son	881 0	Wileman & Gange	793 0
F. J. Bradford	837 0	T. Barker & Sons, Swan-street, Loughborough*	749 0
W. Moss & Son	827 18		
J. Chapman	819 0		

KING'S NORTON.—For erecting public baths at the corner of Hazelwell-street and Bournville-lane, Stirchley, for King's Norton and Northfield Urban District Council. Mr. J. P. Osborne, architect, 95, Colmore-row, Birmingham. Mr. C. T. Bond consulting engineer:—

W. Sapcote & Sons	£8,439	J. Webb	£7,859
W. Pattinson & Sons, Ltd.	7,997	W. Wilkinson	7,846
W. H. Gibbs	7,983	J. Dallow & Sons	7,580
W. & J. Webb	7,955	F. H. Smith	7,495
T. Loud & Sons	7,935	E. Crowder, Birmingham*‡	6,977
B. Whitehouse & Sons	7,86		

‡ For buildings only; does not include the engineering works.

LANGTOFT.—For repairs to farm buildings and cottage, for the Small Holdings Committee of the Kesteven County Council. Mr. Jesse Clare, County Architect, Sleaford:—

A. M. Smith, Deeping St. James	£61 18 2

LONDON.—For proposed extensions and alterations to factories, Holloway-road, N., for Mr. A. Monk. Mr. George Carter, architect, 513, Holloway-road, N.:—

R. D. Lowns & Sons	£1,090	Kirby	£650
Brown	1,019	Welbking & Co.	648
Scott	730	Stevens	598

[Architect's estimate, £630.]

LONDON.—For altering and adapting shop premises No. 108, High-street, Kingsland, and connecting to, No. 106, for Messrs. Edwards & Wise. Messrs. Gordon Wilson & Co., architects, 667, Fulham-road, S.W.:—

S. Hayworth & Son	£249	A. Webb*	£219
M. Cainan & Son	230		

Fire Escape Staircase for Same.

Howard & Co.	£68 0	J. Stone*	£41 0
Jones & Co.	44 10		

LONG DITTON.—For providing and laying 1,100 ft. of concrete tubes, etc., in Ditton Hill-road, for the Urban District Council of Esher and the Dittons. Mr. H. C. Fread, Engineer and Surveyor, Council Offices, Brabant Villa, Portsmouth-road, Thames Ditton:—

H. M. Blaker	£895	T. Adams	£810
J. B. Wickstead & Co.	875	S. Kavanagh & Co., Surbiton-hill*	747
G. G. Rayner	829	J. May	736
Hardy & Co.	825	E. H Bate & Co.	730
Wheeler & Co.	818		

[Surveyor's estimate, £750.]

ORPINGTON.—For the erection of banking premises for the London County and Westminster Banking Company, Ltd. Mr. St. Pierre Harris, architect, 8, Lawrence Pountney-hill, E.C., and Orpington, Kent. Quantities by Messrs. Stoner & Sons, 63, New Broad-street, E.C.:—

T. Howard	£4 443	F. W. Green	£4,079
Durtnell & Son	4,385	R. Large	4,000
Jones & Andrews	4,222	Arnaud & Son	3,996
Pearce Bros.	4,20)	Treasure Bros.	3,850
T. D. Grasy	4,149	W. Blay, Ltd.	3,829
Wiltshire & Son	4,098	Somerford & Son*	3,757
Crossley & Sons	4,088		

PELTON.—For 431 yds. of 9-in. sanitary pipe sewer, for Chester-le-Street Rural District Council. Mr. J. H. Mole, Surveyor, Chester-le-Street:—

J. R. Rutherford	£474 0 0	J. W. Henderson	£263 10 0
J. G. Fell	345 0 0	Johnson & Strong	246 7 8
J. Friend & Co.	311 0 4½	G. Armstrong	242 1 6
J. Wears & Sons	285 10 0	J. Carrick, Durham*	237 11 9

SHADWELL.—Accepted for erecting a villa, for Mr. N. Culey, of Roundhay. Mr. Eric V. Wimpenny, architect and surveyor, Basinghall-street, Leeds:—

Joiner: M. Bristow, Leeds	£431 0
Masons and Bricklayers: G. Nettleton & Son, Roundhay	280 0
Plasterer: A. Watson, Leeds	60 0
Plumber: H. Baston, Headingley	47 8
Slater: G. W. Richmond, Holbeck	21 10

SHOTLEY BRIDGE.—For alterations and additions to the King's Head Inn. Mr. D. M. Spence, architect and surveyor, Shotley Bridge. Quantities by architect:—

Masons, Joiners, and Plasterers: Brown & Tompkin, Consett, co. Durham	£740 0 0
Tiler: J. E. Nelson, Sunderland	78 0 0
Plumber: L. Urwin, Shotley Bridge	76 18 6

LONDON.—For new road, sewers, etc., Winn-road building estate, Lee, S.E., for Mr. D. Duncan. Messrs. Lemon & Blizard, engineers and surveyors, 11, Victoria-street, Westminster, S.W.:—

—	Sewers and Surface Drain in Winn-road and the extension of Guibal-road.	Making-up, Kerbing, and Channelling Winn-road and part of Guibal-road.	Total.
	£ s. d.	£ s. d.	£ s. d.
G. Shellabear & Son	3,776 19 5	2,579 6 2	6,356 5 7
J. B. Wickstead & Co	3,483 16 11	2,574 17 0	6,058 13 11
W. Jones & Son	3,905 14 1	1,840 6 3	5,746 0 4
T. Free & Sons, Ltd	3,575 12 5	2,160 3 8	5,735 16 1
Acme Flooring and Paving Co., Ltd.	3,460 0 0	2,004 7 9	5 464 7 9
T. Wood & Sons	3,270 0 0	2,124 18 0	5,394 18 0
T. Watson	3,070 0 0	2,156 11 4	5,226 11 4
W. Muirhead & Co.	2,951 13 9	2 255 3 6	5,206 17 3
Davies, Ball, & Co.	2.811 18 10	2,386 12 10	5,198 11 8
A. T. Catley	3,100 0 0	1,832 0 0	4,932 0 0
H. Wootham & Sons	3,095 0 0	1,837 0 0	4,932 0 0
F. Miskin, Ltd.	3,025 12 7	1,885 5 2	4,910 17 9
E. & E. Isles	2,950 0 0	1,911 1 0	4 861 1 0
T. Adams	2,908 0 0	1,871 0 0	4,779 0 0
S. Kavanagh & Co.	2,884 7 3	1,882 16 0	4,767 3 3
Wort & Way	2,828 5 1	1,938 5 6	4,766 10 7
Harringdon & Co.	3,037 2 5½	1,719 15 6	4,756 17 11
Exor. of the late F. Osman	2,818 0 0	1,932 0 0	4,750 0 0
J. Douglas	2,767 7 4	1,927 5 5	4,694 12 9
J. Mowlem & Co.	2,826 0 0	1,862 0 0	4,688 0 0
W. Pearce	2,875 8 7	1,806 12 4	4,682 0 11
W. H. Wheeler & Co., Ltd.	2,624 16 1	1,777 0 6	4,4 1 16 7
Fry Bros., Lion Wharf, Greenwich*	2,462 12 10	1,699 5 10	4,161 18 8

LONDON.—For making-up and paving Sumburgh-road, Clapham Common, for the Battersea Borough Council:—

—	Stone for Footpaths.			
	Non-Slip.	Victoria.	Empire.	Adamant.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Kavanagh & Co.	837 10 0	800 0 0	800 0 0	800 0 0
G. Neal	730 0 0	730 0 0	708 0 0	693 0 0
T. Adams	720 0 0	720 0 0	698 18 3	688 17 0
Mowlem & Co., Ltd.	708 0 0	673 0 0	676 0 0	645 0 0
Works Committee	648 0 0*	648 0 0	620 0 0	593 0 6

SHEPSHED. — For erecting a handicraft centre together with out-offices, drainage, etc., for Leicestershire County Council Education Committee. Mr. E. G. Fowler, Architect to the Committee. Quantities by the Architect:—

H. Hammond	£1,420 0	T. Barker & Sons	£1,298 0
Griffin Bros.	1,415 0	E. Fox	1,295 10
Haycock Bros.	1,410 10	A. J. Wileman	1,289 0
G. Bramley	1,405 0	J. Chapman	1,289 0
Atkin Bros.	1,380 0	W. Potter	1,273 0
W. Moss & Sons, Ltd.	1,380 0	A. Faulks, 4 Sparrow-hill, Loughborough*	1,238 0
J. Cole & Son	1,359 0	W. Moss & Son	1,225 0
W. H. Harding	1,329 0		

STON EASTON.—For erecting cottages at Old Down, Ston Easton, near Bath, for Mr. J. Henry Iles. Mr. W. F. Bird, architect, Midsomer Norton, Somerset:—

—	No. 1 Eight Houses.	No. 2 Twelve Houses.	No. 3 Twenty Houses.	Extra for Walls and Gates for Twenty Houses.
	£	£	£	£ s. d.
W. & R. C. Hurford	1,981	2,954	4,912	205 0 0
S. Williams & Sons	1,920	2 840	4,750	290 0 0
C. W. Harris	1,903	2,845	4,729	139 7 6
S. Smith	1,901	2,804	4,692	130 19 0
D. R. Dunthorn	1,792	2,670	4,426	148 10 0
T. Stockham	1,745	2,605	4,320	174 15 0
H. Pittard & Son	1,699	2,527	4,125	156 0 0
Coles Bros.	1,464	2,179	3,6 8	110 0 0
Childs & Townsend	1,414	2,121	3,535	392 2 9
J. Flower	1,475	2,190	3,663	128 0 0
J. Bird & Son, Radstock‡	1,352	2,004	3,300	120 0 0
Architect's estimate	1,473	2,187	3,616	100 0 0

‡ Accepted subject to certain revisions.

TAFF'S WELL.—For paving, kerbing, channelling, sewering, etc., Yew-street for Caerphilly Urban District Council. Mr. A. O. Harpur, Surveyor, Council Offices, Caerphilly:—

J. Williams & Co.	£237 5 11	Morgan Bros.	£204 14 0
R. Pomeroy & Co.	216 1 4	T. Edwards, Taff's Well*	189 1 9

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H. Saville	10 9		
Bayliss, Jones, & Bayliss	10 7		

WHITLEY.—For forming and completing streets, for Whitley and Monkseaton Urban District Council. Mr. A. J. Rousell, A.M.Inst.C.E., Council Offices, Whitley Bay:—

G. Thornton & Co., North Parade, South Shields	£134 7 5
G. Thornton & Co., Roxburgh-terrace, South Shields	98 13 0

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J. Fisher	£3,063 15 1	E. H. Page	£390 8 0
J. Sutherland	437 15 2	G. Morgan, Pontypridd*	374 4 4
W. Brown	419 17 0		
R. Webb	413 12 4		

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